THE CONCEPT OF NIGER STATE FINAL ACCOUNTS: A COMPUTER APPROACH

BY

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APPROVAL SHEET

This project has been examined and found acceptable in partial fulfillment of the requirements for the Post-Graduate Diploma in Computer Science of the Department of Mathematics/Computer Science of Federal University of Technology, Minna.

PRINCE RASHEED BADMUS (PROJECT SUPERVISOR)	DATE
PROF. K. R. ADEBOYE (HEAD OF DEPARTMENT)	DATE
EXTERNAL EXAMINER	DATE

DEDICATION

Salamat, Fatimat and Nafisat - wonderful women of the house with systematically fantastic nature.

ACKNOWLEDGEMENT

With a trembling heart in total submission to the Great-Ruler of all things, I appreciate most sincerely the privilege **ALLAH** (the One free from all blames and the Most High) has granted me to catch an academic prosperity from just around the corner in the form of this little project. I hope this work will be useful to humanity even when most of us who exist today are no more.

This work has been made possible by the kind attention given to me and this project by my supervisor, Prince Rasheed Badamasi, who also is the Course Co-ordinator. He kept me on the edge to avoid allowing my office schedules to keep me out of this project within the stipulated time limit. His guidance was tremendously helpful. I am grateful to the Head of Department, Prof. K. R. Adeboye and all the other lecturers in the department. To the coach who allowed me access to his computers at will, taught me to set my fingers on the keyboard and made very useful contributions towards the fruition of this work, kola AbdulRaheem, I say "Thank you".

I also look back now like always to reflect on my short past and note the tireless and truly concerned pursuit of assistance towards me by my late father, Muhammadu Muhammad who ensured that I attended and should attend all levels of school (formal and informal) to prepare me for a better tomorrow and the great beyond. May ALLAH reward him with a blissful permanent place of abode in the high heavens. For my mother

Hajia Abubakar, who had always treated me as an infant that I have always been, I pray ALLAH to grant her long life, good health, prosperity, faithful transition and a place in the high heavens during her eternal rest when it comes.

My numerous project assistants can not be listed here, but prominent amongst them are Mrs Maimunatu Abdallah and Sheikh Alhassan Ibrahim. To all of them, I am grateful.

Despite all efforts of others, I remain responsible for this work. ALLAH has all knowledge.

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ABSTRACT

Human societies are undergoing increasing dynamism with associated exigencies, in terms of needs and requirements, becoming more urgent for systematic functioning. An effective feedback system is required to measure the performance of individuals or groups of individuals who are vested with respective authorities and incumbent responsibilities.

The entire machinery of government requires a very viable feedback system which is the Financial Reporting System. This should be designed to facilitate accountability, transparency, honesty and wise-progressive decision making.

Financial Reports of Government called Final Accounts make summaries of all transactions of Government in economic terms and they are used by the General Public, Investors, Taxpayers Trade-unionists, Researchers, Bankers and many others. These reports are largely influenced by the Accounting and Information Systems put in place.

Because of the present-day-world's high information technology and rapid growth, development and greater financial commitments of Niger state Government of Nigeria, computerization of all Accounting aspects of the State is imperative.

This work **"THE CONCEPT OF NIGER STATE GOVERNMENT FINAL ACCOUNTS: A COMPUTER APPROACH"** is undertaken to provide a concise Accounting Information System for decision making. This is a quantitative information system derived through automated processes.

CHAPTER ONE

1.0 GENERAL PREAMBLES

1.1 INTRODUCTION

Niger State Government activities are classified into yearly budgets or other periodic plans specified in money terms. The implementation of a year's budget is recorded, in close comparism with the approved estimate in the budget, in form of Final Accounts or Financial Statements. These are Reports which are produced through the application of an accounting system consisting of methods, procedures and devices used to keep track of financial activities and summarize them in a manner useful for decision making. An accounting system involves three steps (financial data collection, data processing and classification and information production in summarized record form).

A computer approach to Niger State Government Final Accounts will involve creating systematic records of daily transactions in monetary terms, classifying these records (usually in huge volume) into related groups and summarizing the information for decision making. This approach will only be complete if the information is published to communicate with users for guidance.

Accounting is a professional area of practice which calls for specialization in producing reports such as Financial Management, Public or Private Accounting Reports. The financial accounting reports concentrate purely on historical reviews of transactions, management accounting reports concentrate on cost analysis to guide decision makers

while public and private accounting are organisation based. Public accounting involves all practices about Government, Quasi-government, large corporations or companies with very large ownership structures. Private accounting is strictly the case of a limited company's accounting practices which have relatively narrower perspectives.

A computer approach means applying automated devices to do respective human activities systematically with a high degree of accuracy, precision and speed in order to accomplish a desired objective. This study simply intends to automate the concept of Final Accounts of Niger State Government.

1.2 STATEMENT OF THE PROBLEM

The compilation and publication of Niger State Final Accounts have been done in the past manually. In order to have a perfect match between efficiency and effectiveness, that is at optimum point, it is desirable to remove the following listed problems:

(i) Delays in the compilation and preparation of Final Accounts consequently causing huge arrears of accounts unprepared.

(ii) When attempts were made to prepare the accounts of previous years they were based on incomplete records.

(iii) Inadequate trained manpower to man the preparation of Final Accounts manually.

(iv) Deliberate human attempts to falsify records and mis-classification.

(v) Inadequate security of vital accounting records.

1.3 OBJECTIVES OF THE STUDY

This study is designed to automate the Final Accounting processes of Niger State Government so that the following things may be enhanced:

(i) Speed of operations of processes of Final Accounts preparation and compilation.

(ii) Accuracy and Adequacy of information generated as Final Accounts Reports.

(iii) Documentation, archiving and retrieval of processed Final Accounts information.

(iv) Checking corruption at appropriate times, including other malpractices.

(v) Forming the base for valuable information for researchers, scholars and auditors.

(vi) Guide policy formulators and decision makers.

(vii) Preserve the integrity of the data with due accord to privacy.

(viii) Forming the basis for a body of knowledge to exist on automation of Final Accounts of Niger State Government in the Ministry of Finance, Treasury Division.

1.4 THE SCOPE AND LIMITATIONS

The scope of this work will cover feasibility studies, system analysis, system design, system development, system implementation and evaluation in respect of Recurrent Revenue, Recurrent Expenditure, Capital Receipts and Capital Expenditure statements.

The limitation of this work includes:

(i) Difficulty in collecting mass data

(ii) Capital intensity.

(iii) Inability to cover all aspects of Final Accounts in the state within a limited time.

(iv) Accounts of only part of a financial year will be used in this study for a few ministries.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Niger State was created on the 1st of April, 1976 and its Government came into being at once. The state, today covers an area of 74,244 sq km with about 15 local tribes. It has a population of 2,421,581 as specified by 1991 head count and confirmed in 1997.

The state has twenty-five Local Government councils and each has its own administrative machinery. The State Government is charged with responsibilities of effective administration, security and wellbeing of its people. To be able to perform these functions, the state receives its revenues from the Federation Accounts (as its rightful share from the main pools as specified by law). Whatever accrues to the Federal Account on monthly basis, is shared in accordance with the approved constitutional formula amongst the following beneficiaries:

- FGN	48.5%
- State Governments	24%
- Local Government Councils	20%
- Federal Capital Territory	01%
- OMPADEC	03% of Oil Revenue
- Ecological Fund	02% of Total Revenue
- Derivation	01% of Mineral Revenue

- Stabilization account 0.50% of Total Revenue

Niger State Government receipts from the Federation Account represent about 90% of its total revenue. Other receipts are from internal sources which include Taxes, Fines, Sales, Licenses, Reimbursements, Dividends, etc.

Niger State Government is the main participant in the state's economy and therefore inevitably has a high expenditure profile.

For all revenues and expenditures to be adequately managed, reports have to be made to the citizenry periodically. This requirement gives rise to the need for Ministry of Finance, Office of the Accountant-General, to periodically prepare Accounting Statements called **Final Accounts**. These Accounts give clear pictures of what happened in terms of Receipts, Payments, Assets, Liabilities and other funds.

2.2 PRELIMINARY INVESTIGATION AND THE EXISTING SYSTEM

One is inclined to investigating, at first hand, the nature of the present system of preparing Final Accounts, its problems and prospects, its efficiency and effectiveness, possible alternatives and best approach amongst others.

At once, one can observe that there are bound to be problems with the existing manual system of accounting. These problems include those listed in chapter 1.2.

Furthermore, one has to carefully study the situation to know the significance of the existing problem as it relates to the Accounting System.

Final Accounts are prepared by the office of the Accountant-General as one of its numerous functions. It is a reporting system that reflects adequately on historical basis and it tries to provide basic insights into the future, these reports are made from various books of accounts maintained for all transactions during the course of a specified time called the "**Accounting Period**" or "**Fiscal Year**". These Reports are intended to provide financial information useful for the determination and prediction of flows, balance and financial resources of Government set-ups, monitoring performances in respect of established and approved targets and legal terms of contractual and fudiciary relationships.

Accounts of transactions are kept from the point of occurrence of such transactions. If Accounting Records and Final Accounts are well kept and prepared, respectively, there will be minimal incidents of fraud or other sharp practices.

The basic Accounting Record starts with book-keeping which culminates into maintenance of ledgers (personal or impersonal). These Ledgers carry balances (debit or credit), at the end of each Accounting period, which are subsequently closed into a Trial Balance (being the summary of all debit and credit balances in the books of Account). The Trial Balance is eventually processed into Final Accounts. All transactions are recorded with due respect to the double entry booking theory (i.e. to every debit there is a corresponding credit).

Accounting itself is a service activity which provides quantitative information about economic entities; the information is primarily financial in nature and it is intended to aid making viable economic decisions. It can be grouped into either Financial, Cost, Management, Public, Private, Government or General accounting.

2.3 FEASIBILITY STUDY

A three-way feasibility test has been conducted in respect of Operational, Technical and Economic feasibility considerations.

(i) OPERATIONAL FEASIBILITY

All individuals who are concerned with all operations of Final Account were interviewed and all are agreeable to automating the process of the preparation of Final Accounts in the State.

(ii) TECHNICAL FEASIBILITY

Niger State Government is already on the way to establishing a computer center in the Ministry of Finance with adequate personal computers and reasonably trained personnel to manage a possible computerization.

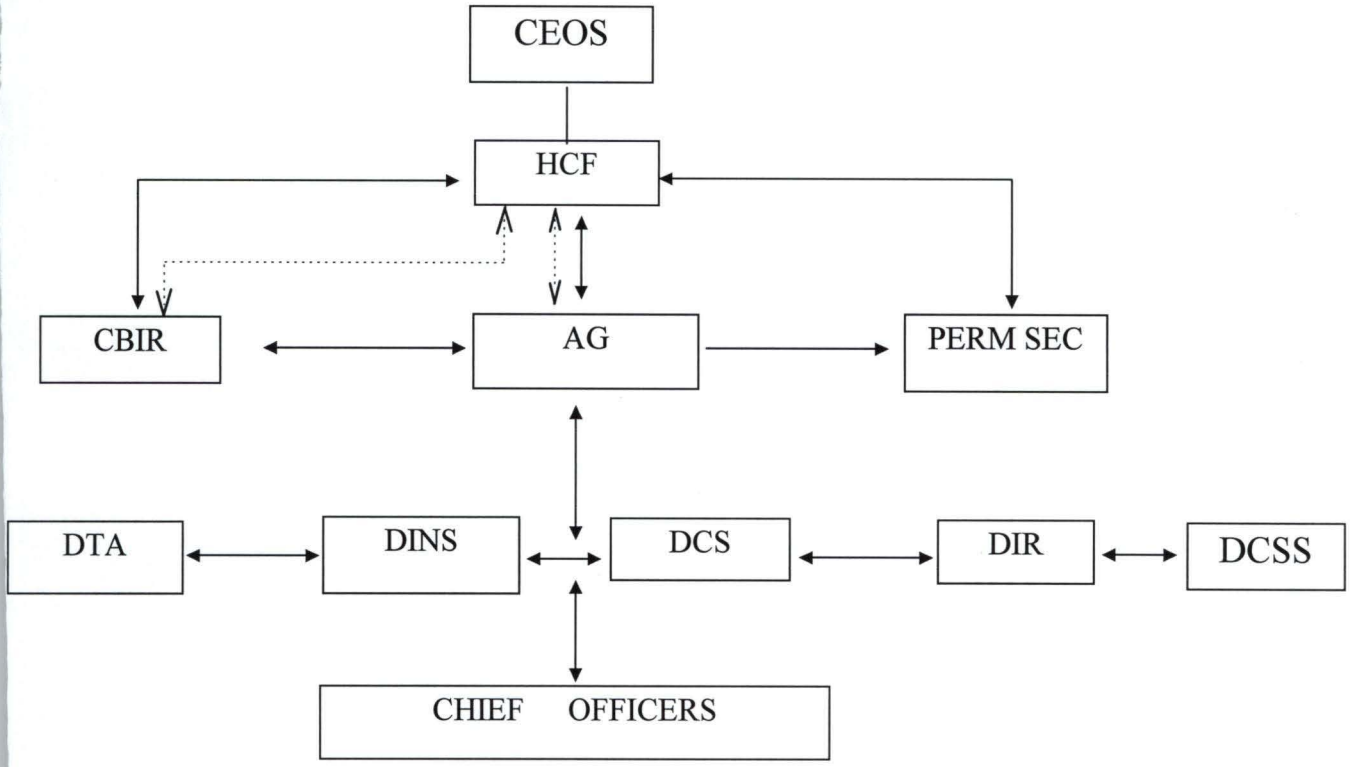
(iii) ECONOMIC FEASIBILITY

Ministry of Finance is willing to incur additional cost to modify or expand the existing system. It is also cheaper to computerize the Final Accounts processes in the state. Products of computer processes are also believed to be more accurate than those from the manual approach.

4

ORGANIZATIONAL STRUCTURE OF NIGER STATE FINANCE SECTOR, ROLES OF KEY OFFICERS AND ACCOUNTING OPERATIONS

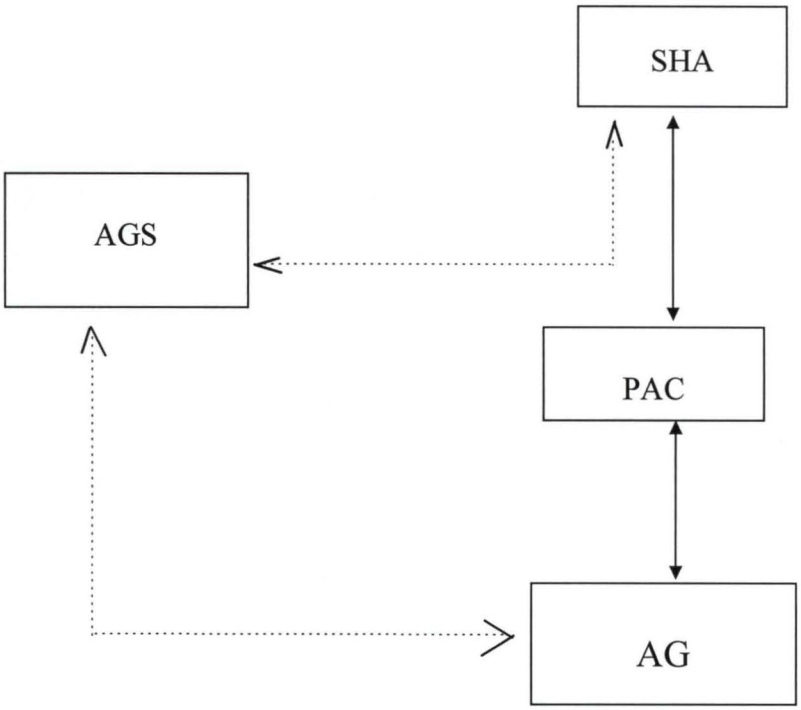
FIG. 1



OTE 1

CEOS	Chief Executive officer of the State (either a Governor or an Administrator.)
HCF	Hon. Commissioner of Finance
PERM SEC.	Permanent Secretary for Ministry of Finance.
AG	Accountant-General of the State.
CBIR	Chairman Board of Internal Revenue.
DTA	Director Treasury Accounts.
DINS	Director Inspectorate.
DCS	Director Cash Supply.
DIR	Director Internal Revenue.
DCSS	Director Computer Services

FIG. 2



OTE 2

SHA	State House of assembly.
AGS	Auditor-General for the state.
PAC	Public Accounts Committee formed from the SHA.
AG	Accountant-General.

OTE 3

The doted lines in the two figures denote professional relationships while straight lines are administrative and bureaucratic relationships.

The structure of Niger State Finance Sector simply means the structure of the state Ministry of Finance and its associates.

The state is headed by either a Governor or an Administrator, elected or appointed or assigned. This Chief Executive has the responsibility of directing the affairs of the state in close liaison and consultation with the State Executive Council of which the State Commissioner of Finance is a member. The professional and carrier civil servants who operate in the Ministry of Finance are headed by the Permanent Secretary who is the accounting officer of the Ministry while the Treasury of the State is headed by the Accountant-General who is the accounting officer of the State. The Internal Revenue service is headed by the Chairman Board of Internal Revenue. These officers inter-relate, as specified by regulations and enabling circulars, and eventually they all are answerable to the Honorable Commissioner of Finance who is the Chief Executive of the Ministry.

The Accountant-General is in charge of taking due custody of all Government Financial resources and making all lawful disbursements there from. The Accountant-General also reports on these activities periodically. The main report is called Final Accounts. There are various Directors in the office of the Accountant-General of the state and they include: Director Treasury Accounts who handles preparation of Final Accounts and other treasury operations; Director Inspectorate who handles regular inspections of all treasury operations and internal audit; Director Cash Supply who handles all cash flow activities of the Treasury, Director Internal Revenue who liaises with the Board of Internal Revenue to ensure that all revenues due to the state are

collected, deposited into the Government account and are duly accounted for; and the Director Computer Services who is to head the new Computer Centre.

All these Directors are assisted by various senior officers in their respective areas of jurisdiction.

When revenues are collected by the Board of Internal Revenue they are returned to the Accountant-General and are added to all other collections including the principal one (Statutory Revenue Allocation). The total receipt is reported to the Chief Executive of the State through the Honourable Commissioner of Finance. Disbursements are authorized to be made in line with the States's approved estimates called the **BUDGET.** The Accountant-General then releases funds to all Government Ministries, Parastatals and Agencies as approved. The Accountant-General while reporting the financial position of the state will normally make all necessary advisory recommendations based on professional practices, financial constraints and prevailing demand for funds.

Individual Ministry and Department would make returns accordingly to the office of the Accountant-General to be specifically handled by the Director Treasury Accounts who sets the machinery in motion for the preparation of Final Accounts. This is done in close liaison with all divisions, particularly with the Computer Centre.

When the report is compiled, it is submitted to the Auditor-General for the State and the Chief Executive of the State. The Auditor-General sends his consequent report to the State House of Assembly for deliberation. The House then details the Public Accounts Committee to peruse the Report. The committee performs this function in close

consultation with the Accountant-General. When all gray areas are reconciled the report goes to press for publication. This is done for every financial year of the Government.

CHAPTER THREE

3.0 SYSTEMS ANALYSIS AND DESIGN

3.1 INTRODUCTION

The analysis of the system requires the study of the existing procedures to identify the problem areas. This is done by analysing the existing government accounting practices. The design of the new system shall be a function of the information gathered at the analysis stage in order to evolve a system that would resolve all the identified problems. Therefore, this chapter is intended to study the current system, identify its problems, ascertain cost and benefit of the new system and design the proposed new system such that input and output are specified with adequate descriptions of all relevant database files required for the functioning of the new system.

3.2 THE CURRENT SYSTEM

The Office of the Accountant-General of the State is the custodian of Niger State finances. This office is part of the State Ministry of Finance. It has the responsibility of managing all funds in its custody. These funds are in form of revenues generated from all sources and all expenditures authorised by all relevant functionaries of the State Government.

In the process of discharging these responsibilities, the Office of the Accountant-General makes funds available to Ministries, Departments and Parastatals for their authorised expenditures, Recurrent and Capital, in the course of every financial year. After expenditures are made by Ministries and revenues are received, entries are made in relevant books of accounts, such as Cash Books and Departmental Vote Books to record all financial transactions at any point in time, on monthly basis or periodically within the financial year, returns of accounts are rendered to the Office of the Accountant-General in respect of all remittances received, revenues collected and expenditures made including balances outstanding. This places the Office of the Accountant-General in the right position to present the global financial position of the State at any particular time, especially at the end of every financial year. This current system is basically done manually in most of Ministries and Departments including Ministry of Finance.

3.3 PROBLEMS OF THE CURRENT SYSTEM

The current system is unable to produce Final Accounts as at when due accurately and this hinders timely formulation of current policies.

Problems specifically identified as militating against the existing system of Government Accounting Practices in the State include the following:

(a) Lack of complete and proper record of accounting operations of the State. This may be due to loss or misplaced accounting information or documents in handling and/or in entry processes.

(b) Time lag in the preparation of Final Accounts. This problem emanates from delays in rendition of returns of account by Ministries and Parastatals.

(c) Inaccurate computation of figures in returns of account rendered by Ministries and Departments. This is due to the manual nature of the accounting processes.

(d) Incomprehensive Control Mechanism. This is because when most processes are manually done, it becomes too cumbersome to put all human vices in check.

(e) Confidentiality is Compromised. The volume of document is large and storage facilities are insecure and inadequate. There is quite a number of manual hands dealing with confidential document which allows for leakages.

3.4 COST AND BENEFIT ANALYSIS OF THE NEW SYSTEM

The cost-benefit analysis shall be made in terms of the financial outlay to be involved in the establishment of the new system and the expected benefits to be derived from its application. The financial outlay includes costs of development, installation and application of the new system. Emphasis shall be on development and operating costs.

3.4.1 **THE COST ANALYSIS**

(a) **DEVELOPMENT COST** This is sketched as follows for three working weeks or one hundred and fifty man hours:-

(i)	Systems Analysis/Design	₦	₦
	* Systems Analyst/Designer	150,000.00	
	* Systems Programmer	175,000.00	325,000.00
(ii)	Software Development & Implementation		85,000.00
(iii)	Equipments		
	* 1 No. IBM Compatible Microcomputer - Pentium 166 MHZ - 16MB RAM - 2.1GB Hard Disk - SVGA Monitor		255,000.00
	* 2 Nos. IBM Compatible Microcomputers - 486 DX/100 MHZ - 4MB RAM - 850MB Hard Disk - SVGA Monitor (₦180,000.00 each)		360,000.00
	* Computer Printers		
	- 2 Nos. Epson Printers (LQ 2170) (₦95,000.00 each)		190,000.00
	- 1 No. LaserJet Printer(Laser 4P)		180,000.00
	* 3 Nos. Stabilizer (UPS) of about 350 Volts (₦80,000.00 each)		240,000.00
	* Installation Cost (Software)		100,000.00

*	Procurement & Installation of 2 Nos. Air Conditioners (₦135,000.00 each)		270,000.00
*	Personnel Training		
-	4 Operators @ ₦15,000.00 for 2 months		60,000.00
	Total Development Cost		₦2,070,000.00

(b)	**SYSTEM OPERATING COST**	₦	₦
i.	Program Maintenance Per Annum		75,000.00
ii.	Equipment Maintenance Per Annum		120,000.00
iii.	Utilities Per Annum		35,000.00
iv.	Supplies of Computer Stationeries		100,000.00
v.	Labour cost		
-	1 No. Systems Analyst/Programmer Per Annum	80,000.00	
-	3 Nos. Computer Operators (₦24,000 Per Annum/Operator	72,000.00	152,000.00
vi.	Miscellaneous expenses		30,000.00
	Total System Operating Cost		₦512,000.00

Grand Total of (a) and (b) = ₦2,582,000.00

3.4.2 BENEFIT OF THE PROPOSED SYSTEM

The specific benefit of the proposed system are as follows:

i. To enhance the efficient operation of the Office of the Accountant-General.

ii. To facilitate prospects for effective planning and control through speedy documentation of transactions and retrieval of information regarding State finances.

iii. To ensure accurate, speedy and efficient reports generation for use by the State Government and its functionaries.

iv. To check human errors, fraudulent and sharp practices.

v. To ensure confidentiality and secrecy of Government financial status and transactions.

3.5 INPUT SPECIFICATION

The input design is made to achieve the following objectives:

i. To produce a cost effective method of input.

ii. To achieve the highest level of accuracy.

iii. To ensure that input is acceptable to and understandable by users.

iv. To reduce the amount of input data through the use of coding system.

v. To ensure that correct data, in required amount, are provided at any point in time.

Based on these objectives, the input design is made in an interactive mode. This is done through dialoguing with an online system in which the computer system prompts users for entries. Entry codes are used to reduce input task, control errors and guarantee the speed of the entire process with fewer details and without loss of required information. The input is designed to reject non-existing codes and inappropriate data entry. This is further accompanied by a message which gives instructions to the entire users.

Specifically, the proposed system will require three forms of input into it. These are Account Code Entry, Estimate Entry, and Transaction Entry.

The account code entry contains details of new code that needs to be included into the available codes. It is expected to be designed to contain information such as:

* Head code and description
* Subhead code and description
* Section code and description

Estimate data entry is expected to be designed to aid entry of budgeted amount for each of the available account codes. It is expected to contain information such as:

* Account codes and their respective descriptions
* Budgeted amount of each account code

The transaction entry requires the input of transactions of both revenue and expenditure. It is expected to be designed to contain the following information:

* Account Code
* Date of Transaction
* Amount of Transaction
* Payment Voucher No.
* Receipt Voucher No.

3.6 OUTPUT SPECIFICATION

Output refers to the result and information that are generated by a system. The output from a computer system is required primarily to communicate the result of processing to users or other system or more importantly, to provide a permanent (hard) copy of these results for consultation. The design process of the output begins by the identification of the output the system should produce. It is as a result of this that in designing output for the proposed system, the needs of users were fully considered. Specifically, the output of the proposed system is designed to generate eight reports. These are - Abstract Statement of Assets and Liabilities, Receipts and Payments, Recurrent Revenue by Subheads, Recurrent Expenditure by Subheads, Consolidated Revenue Fund, Capital Receipts by Subhead, Capital Expenditure by Subhead and Capital Development Fund. These reports or statements are described below:

a. **ABSTRACT STATEMENT OF ASSETS AND LIABILITIES**: This is a report that shows the list of assets and liabilities.

b. **RECEIPTS AND PAYMENTS**: This is a report that shows the list of receipts and payments.

c. **RECURRENT REVENUE BY SUBHEADS**: This report lists all recurrent revenues by subheads.

d. **RECURRENT EXPENDITURE BY SUBHEADS**: This report lists all recurrent expenditure by subheads.

e. **CONSOLIDATED REVENUE FUND**: This is a report that shows previous year's which were rolled over into the current year and total recurrent revenue of the current year.

f. **CAPITAL RECEIPTS BY SUBHEAD**: This is used to list capital receipts by subheads.

g. **CAPITAL EXPENDITURE BY SUBHEAD**: This is used to list capital expenditure by subheads.

h. **CAPITAL DEVELOPMENT FUND**: This forms the details of report that are capitalised from the balances of the previous year.

NOTE: Items c, d, f and g are emphasized in this project.

3.7 DATABASE FILES DESIGN

The design of database files defines the descriptions of all the database files that are used in a system. It includes the description of the contents of files used and their structures. Therefore, all the files that are used in this system are fully described in this section.

The proposed Computerised Government Accounting System in the Office of the Accountant-General consists of six database files namely: ACCOUNT.DBF, HEAD.DBF, SUBHEAD.DBF, SECTION.DBF, TRANS.DBF, and BALANCE.DBF.

3.7.1 ACCOUNT.DBF

This is a file that contains details of all the available account codes. The structure of this file is as shown below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	ACODE	CHARACTER	8	
2.	ESTIMATED	NUMERIC	20	2
3.	ACTUAL	NUMERIC	20	2
4.	BBF	NUMERIC	20	2
5.	HEAD	CHARACTER	3	
6.	SUBHEAD	CHARACTER	2	
7.	SECTION	CHARACTER	2	
8.	TYPE	CHARACTER	2	

3.7.2 HEAD.DBF

This is a reference file which contains the various head codes and their respective description. The structure of this is as stated below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	CODE	CHARACTER	3	
2.	DESC	CHARACTER	20	
3.	TYPE	CHARACTER	2	

3.7.3 SUBHEAD.DBF

This is a reference file which contains the various subhead codes and their respective description. The structure of this file is as stated below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	CODE	CHARACTER	2	
2.	DESC	CHARACTER	20	
3.	TYPE	CHARACTER	2	
4.	HEAD	CHARACTER	3	

3.7.4 SECTION.DBF

This is a reference file which contains the various section codes and their respective description. The structure of this file is as stated below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	CODE	CHARACTER	2	
2.	HCODE	CHARACTER	3	
3.	DESC	CHARACTER	20	

3.7.5 TRANS.DBF

This is a file that contains the details of all the transactions of financial activities.

The structure of this file is as shown below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	ACODE	CHARACTER	8	
2.	DATE	DATE	8	
3.	AMOUNT	NUMERIC	15	2
4.	HEAD	CHARACTER	3	
5.	SUBHEAD	CHARACTER	2	
6.	SECTION	CHARACTER	2	
7.	TVN	CHARACTER	6	
8.	PSN	CHARACTER	6	
9.	TYPE	CHARACTER	2	

3.7.6 BALANCE.DBF

This is a file that contains details of balances of all account codes. The structure of this file is as shown below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC
1.	ACODE	CHARACTER	8	
3.	ACTUAL	NUMERIC	20	2
4.	HEAD	CHARACTER	3	
5.	SUBHEAD	CHARACTER	2	
6.	SECTION	CHARACTER	2	
7.	TYPE	CHARACTER	2	
8.	TOTALM	NUMERIC	20	2

3.8 PROGRAM DOCUMENTATION

The proposed system is designed to work on suite of programs developed in modules. It involves the physical construction of the logical design described above. The procedures defines the program specification for output, input, files, and processing into computer software. The designing of the computer software is important to ensure that the actual programs produced perform all tasks as intended and to allow for future modifications to be performed in an efficient manner and with a minimum destruction to the design of the system. Therefore, the documentation of the program specification are specified accordingly.

CHAPTER FOUR

4.0 SOFTWARE DEVELOPMENT AND IMPLEMENTATION

4.1 INTRODUCTION

The software development and implementation stage is intended to put in place and test the newly designed system, provide for the mode of conversion, and prepare the documentation manual which will help the end users understand the workings of the system. This is always done to provide the environment conducive for efficient working of the system.

In order to provide the necessary information for the specified area, this chapter states the choice and features of the software used in program development. In addition, the requirement in terms of hardware configuration and software types for the computerised procedure is also stated. The software test implementation of the new system, the recommended changeover procedure and conversion which are considered important are also described in this chapter.

Finally, the documentation of the working of the system is also considered essential in order to aid references by end users as well as to aid proper understanding of the system.

4.2 CHOICE OF LANGUAGE

The proposed system is designed using Database Management System (DBMS). A database is an organised collection of related information designed to meet various needs of an organisation or establishment. DBMS is a software used to provide an interface between the user and data contained in a database. It helps users to create, maintain, organise and retrieve information from a database such that it is used by establishments or institutions to manage their data resources.

Specifically, the important functions of a DBMS are as follows:

- create and populate a database.
- Update information in the database.
- Organise the data of the database.
- Retrieve data from the database.
- Generate report from the database.
- Maintain integrity and consistency of data.
- Provide shareability of data amongst users.

Database management software is of various types which include dBASE, Clipper, Foxbase, Informix, Paradox, Oracle and a host of others. Specifically, the new system is developed using the combination of dBASE and Clipper. dBASE is of different versions such as dBASE II, dBASE III, dBASE III+, dBASE IV and the latest dBASE V. dBASE IV which is the particular dBASE program used in the development of this

system has capabilities for programming. As in dBASE, Clipper is also of different versions out of which Clipper Version 5.3 is used for the compilation of the source program designed in dBASE IV.

4.3 FEATURES OF DBMS

In the early days of programming, programs were developed in a file processing environment. In this environment, user's requirements are treated in isolation with application program operating almost independently. Files and records are designed in such a way to satisfy individual operational needs thereby imposing organisational barriers with regards to the data.

However, in most information systems, it is desirable to have the ability to jump over these imposed barriers and access data right across the organisation. This led to the introduction of database environment. In data processing environment, data are viewed as a whole irrespective of their type. Furthermore, the integration of data of different types are linked by logical relationships through a DBMS. The specific features of DBMS are as follows:

i. **DATA INTEGRATION**:- In a database, information from several files are co-ordinated, accessed and operated upon as if they are in a single file. Logically, the information is centralised, physically, the data may be located in different files. In addition, it is possible for two or more applications to share compatible data.

ii. **DATA REDUNDANCY IS ELIMINATED**:- Data redundancy occurs when the same data appears in more than one file. This leads to wastage of storage space and duplication of efforts during data entry. One basic feature of DBMS is that it eliminates data redundancy since it does not allow duplication of data.

iii. **DATA INDEPENDENCE**:- Another feature of DBMS is that it ensures data independence because application programs are isolated from the physical or logical storage of data. This feature seeks to allow for changes in the content and organisation of physical data without re-programming of applications or vice versa.

iv. **DATA INTEGRITY**:- This is an important feature of DBMS. Since data is stored once without duplication, the information retrieved is consistent as only one update is enough if there is a change in the data.

v. **DATA SECURITY:-** The security of data becomes possible because database environment allows for centralisation of data in an organisation. This implies that data storage is not duplicated within different units of the organisation. The expected benefit of this is that the control of data retrieval and confidentiality can be ascertained.

4.4 WORKSTATION REQUIREMENT

The new system is designed to work on a standard microcomputers. Specifically, the computer configuration should include microcomputers, printers and Uninterrupted Power Supply, (UPS). In addition, the establishment will also require the installation of

a software for other purposes. This is discussed under the hardware and software requirements.

4.4.1 HARDWARE REQUIREMENT

(i) COMPUTER HARDWARE

Three microcomputers which will be used in a network environment with one serving as Server and the remaining two as Work Stations. The three microcomputers should be IBM or its compatible. Specifically, the Server is expected to be a Pentium 166 MHZ (megahertz) microprocessor with a minimum RAM (Random Access Memory) of 16MB (megabyte) and a hard disk capacity of about 2.1GB (gigabyte), while each of the Work Stations is expected to be a 80486 microprocessor of about 4MB with up to 100 MHZ speed. The Work Station should possess a hard disk capacity of about 850MB. Each of the three microcomputers should possess a floppy disk drive unit providing for 3.5 inches diskette.

The above essence of the proposed microcomputers is to ensure speedy retrieval of information and also to meet up the future computer needs of the Niger State Office of the Accountant-General.

(ii) **PRINTERS**

Printers are required to make hard copies of the reports that will be generated. In the proposed system, three printers are required for the computerised procedures with the combination of two dot matrix printers (Epson LQ-2170) and one Laser printer (LaserJet 4P). The Epson printers which are expected to be of a near letter quality feature and speed of about 12OO lines per minute with a maximum width of 160 characters per line is recommended. The LaserJet printer is expected to be used for the production of text, official reports and letters.

(iii) **UPS**

This is regarded as Uninterrupted Power Supply and it is used to ensure constant power supply to the computer and its environment. It has the capability for automatic provision of power incase there is power failure in order to allow for continuity of job. This is considered very important because of the prevalent erratic power supply in this nation. For the available computer hardware, there should be three UPS with each not less than 350 volts.

4.4.2 **SOFTWARE REQUIREMENT**

The introduction of a Computerised Accounting System in the Office of the Accountant-General, Niger State is expected to facilitate the activities of the department.

This is because computers can be used for purposes like text preparation, data analysis and other forms of data processing. This, mostly requires the use of application packages. Application packages are ready made programs developed by experts for specific applications. They have the advantages of flexibility, relatively being cheap and ease of use.

Specifically, the recommended software dBASE IV, Clipper Version 5.3, WordPerfect for Windows (a word processing package) and Lotus 1-2-3 (a spreadsheet package). The dBASE IV and Clipper Version 5.3 are needed to allow for the modification and compilation of the suite of programs of the new system since they were developed in the environment. For the word processing package, the WordPerfect for Windows will be used to produce text document which will be of immense importance to the Office. The Lotus 1-2-3 is expected to aid some calculations and analysis which will be required in the organisation as a matter of necessity.

4.5 SOFTWARE TESTING IMPLEMENTATION

Software testing is the stage of implementation which is aimed at ensuring that the system works accurately and efficiently before life operation commences. The logical and the physical designs should be thoroughly and continually examined on paper to ensure that they will work when implemented. Therefore, the systems testing in implementation should serve as a confirmation that all is right and affords an opportunity to show the user that the system works correctly.

However, this proposed system was fully tested to confirm its reliability. Specifically, a user acceptance testing was performed. This type of testing involves the users of the program in testing to confirm that the system is doing what is required to be done. The testing was done using a set of carefully selected test data which was entered into the system. The result was compared with the result obtained from the previous run and they were found to be the same.

In view of this, it is then concluded that the newly developed systems is working accordingly.

4.6 CHANGEOVER PROCEDURE/SYSTEMS CONVERSION

This stage involves file conversion, file setup and changeover procedures. File conversion requires changing the old (existing) system files to the format and content required by the new system. File setup is the process of setting up the converted files on the computer. Changeover is the full replacement of all the old procedures by the new ones.

The changeover could be in any of the following three forms:

i) PARALLEL CHANGEOVER:- This requires the old and new system to run concurrently for some time using the same inputs. The output of the two systems are compared. This will continue until the new system is confirmed to be working satisfactorily.

ii) DIRECT CHANGEOVER:- In this case, the new system becomes operational immediately.

iii) PILOT CHANGEOVER:- This requires changing to the new system on a piece meal basis.

All the above highlighted procedures of a system conversion can be adopted for the new system. It should be noted that the file conversion and file set-up can be performed by a computer operator under a close supervision. However, a parallel changeover method for the full conversion of the system is recommended. This is to ensure that within the period of changeover, the store activities in terms of storage and information retrieval are not, in any way affected.

4.7 STARTING THE SYSTEM

As stated earlier in this chapter, the new system is developed using the combination of dBASE IV Clipper Version 5.3. The inclusion of Clipper for the compilation allows for the running of the system direct from the operating system prompt. This implies that typing 'NGSFACCT' at the operating system prompt displays the first level menu in which users would select from the choice available.

4.8 DESCRIPTION OF THE MENU STRUCTURE

The menu structure will be discussed using the figures representing the screen design of the proposed system.

Specifically, the new system has seven options in the first level menu as represented by figure 1 in Appendix I. These options are TRANSACTION UPDATE, MONTH-END PROCESS, REPORTS GENERATION, DAILY ENQUIRY, FILE MANAGEMENT, UTILITIES, and SYSTEMS EXIT. Each of these options can be selected using the arrow keys to highlight the option of interest. The options are discussed in turns as follows:

4.8.1 **TRANSACTION UPDATE**:- Daily accounting transactions regarding the state are expected to be entered into the proposed system. The transaction update menu enables the users to manipulate the accounting transaction entries. It has facilities for entering new accounting transactions, modifying, viewing and deleting of the existing transactions as represented by figure II of Appendix I. The screen designs for each of the above stated facilities are represented by Figures III to VI respectively.

4.8.2 **MONTH-END PROCESS**:- This is an option used to process the transactions entered into the transaction file to update the balances of each of the affected account codes. This is expected to be done on monthly basis in a cumulative manner in order to facilitate the end of year processing of the final account. The system prompts for a confirmation to process transactions and it gives the status

of processing within the period of operation thereby reflecting the internal operations of the system as represented by Figures VII and VIII respectively in Appendix I.

4.8.3 **REPORTS GENERATION**:- This menu is used for the selection of report that needs to be printed. These reports as stated in Section 3.6 (a - h) under the caption OUTPUT SPECIFICATION, are highlighted in the menu. The screen format for this is as represented in Figure IX in Appendix I.

4.8.4 **DAILY ENQUIRY**:- This option is used to make enquiries as regards the financial position of any arm of the state affairs at any given time. It has a submenu which shows the two categories of codes as displayed in Figure X in Appendix I. Once a category is selected, the system prompts for the account code of interest which will then show the financial state of that particular code.

4.8.5 **FILE MANAGEMENT**:- This is an option that helps to maintain account codes of the State. It allows users to update either codes file or station file such that a new code can be created, an existing code can be modified, viewed or deleted. The screen designs for each of this are represented by Figures XI and XII in Appendix I. Figure XIII in Appendix I represents the screen design for new account code creation and this is similar to the screen designs for modifying and deleting existing codes. For viewing code, a submenu for the categories of the account codes are displayed as in Figure XIV from which the user selects a category as required. After the selection, a list of all the available codes in the

selected category are displayed. Figure XV in Appendix I contains a partial list of such codes.

4.8.6 **UTILITIES**:- The Utility option enables the user to perform other important tasks within the system. It has a submenu with two options as displayed in Figure XVI in Appendix I. The Estimate Data Entry in the submenu is used to input the budgeted figures for a particular year per account codes. The New Year Update is expected to prepare account position for the incoming year as in the case of consolidated revenue fund and capital development fund.

4.8.7 **EXIT**:- This is an option used to stop the working of the system and takes the user back to the operating system prompt.

CHAPTER FIVE

5.0 SUMMARY, RECOMMENDATION AND CONCLUSION

5.1 SUMMARY

The Niger State Office of the Accountant-General is currently using manual procedures in performing the accounting activities. These activities include keeping of accounting records as well as the preparation of accounting reports and other financial statements.

Specifically, the office has been performing these tasks with some associated problems such as wastage of time in retrieving information, loss of data, inaccurate computation of results and a host of others. These are becoming more prominent nowadays because of the increased activities in the government setup with the net effect of exerting pressures on the staff of the unit. It then becomes obvious that the manual procedure can no longer cope with the need of the office. This then necessitated the need to propose a computerised system for the establishment.

However, the proposed system was designed based on the analysis of the existing system carried out as well as the need to meet the requirement of users. Because of the features of Database Management Packages, dBASE IV was used to develop the system. The detail of the software development was fully described as well as the specification of input and output files.

Given the logical and physical designs of the system, the appropriate mode of implementing the proposed system was also highlighted in order to allow for proper usage of the new system.

All these were done with the hope that the proper introduction of the computerised system would solve the problem presently encountered with the named procedures.

5.2 RECOMMENDATION

The proposed computerised accounting system in the Office of the Accountant-General, Niger State is expected to bring some benefits to the organisation in addition to solving the current problems. However, for proper execution of the new system, the following recommendations need to be adopted.

(a) The office needs to create a computer section which will be vested with the responsibility of seeing to the day-to-day operations of the computer usage. This section is expected to be headed by a supervisor whose qualification should be at least a Bachelor degree in Computer Science or an Accounting graduate with additional qualification in Computer Science. The supervisor should be vested with the responsibility of maintaining the computer as well as designing and developing software for local use in the establishment.

(b) A training arrangement is also recommended for the staff that would be working directly with the computer. Training course on computer Appreciation and operation for a duration of 2 or 3 months is envisaged.

(c) Computer workshops on regular basis should be organised for the management and middle management staff of the office. This is intended to curb computer frauds.

(d) Furthermore, there is need to install good security measure on access to computer and its usage. Unauthorised persons should not be allowed into the computer room. This is expected to safe-guard the information contained in the system.

(e) Finally, there should be a strict adherence to the application software required and the hardware configuration in order to achieve the efficient implementation of this newly designed system.

(f) Further studies on this subject should strive to improve on this one in order to finally have a complete document on the computerisation of Final Accounts in the office of the Accountant-General, Niger State.

5.3 CONCLUSION

This computerization of operations is done because of the expected benefits. In addition, the world is already in a computer age and any organisation that wants to be relevant needs to be computerised. Similarly, a professional without a computer touch and system not computerised may not find places of relevance in the present day world.

However, it is not only the computerisation of an organisation that matters, but in addition, the efficient operation of such computerised procedures needs to be pursued with all the necessary vigour. This is necessary so that the expected benefit of a computerised system will be fully maximized.

In realisation of this, the proposed system when finally put into operation will no doubt bring the Office of the Accountant-General, Niger State immeasurable benefits in its present and future day-to-day activities.

REFERENCES

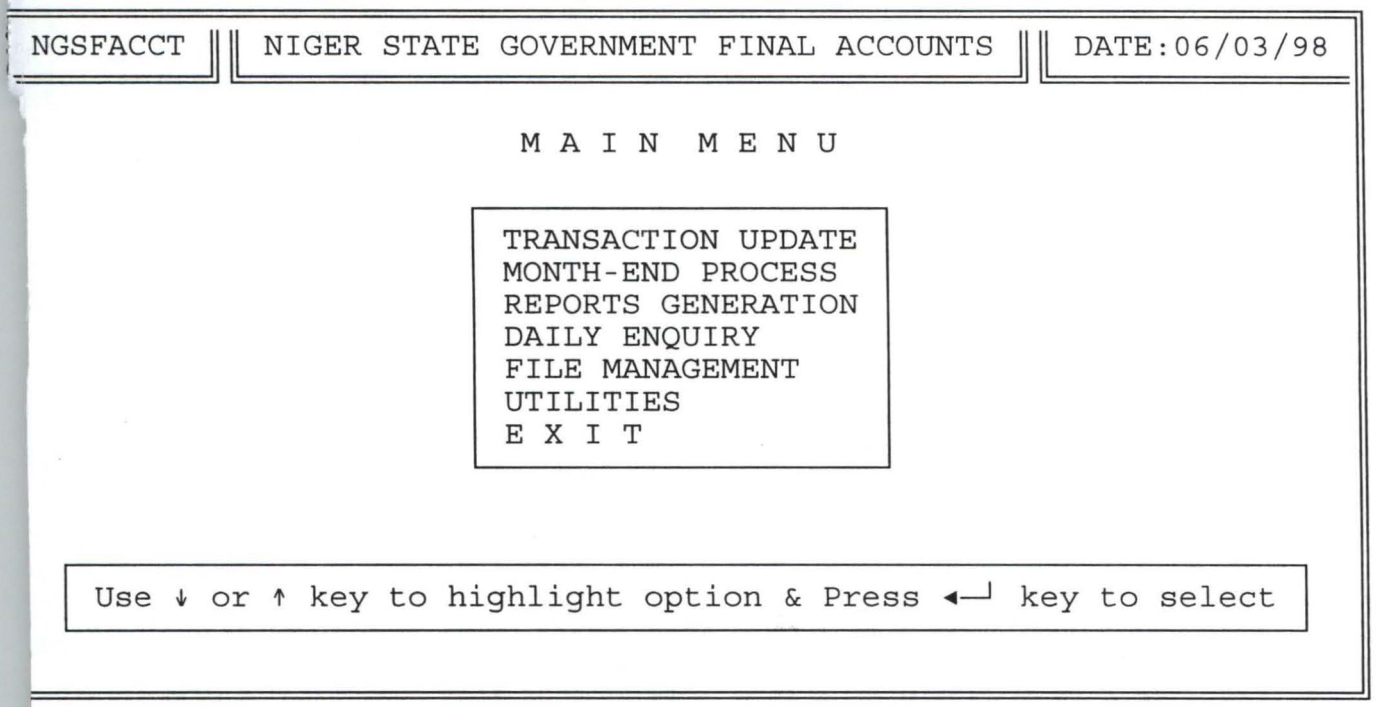
Ayo C.K. (1994) Computer Literacy (Operations & Appreciation) First Edition. Published by Alanukitan Commercial Press (Nig.) Ltd. Egbe Kogi State.

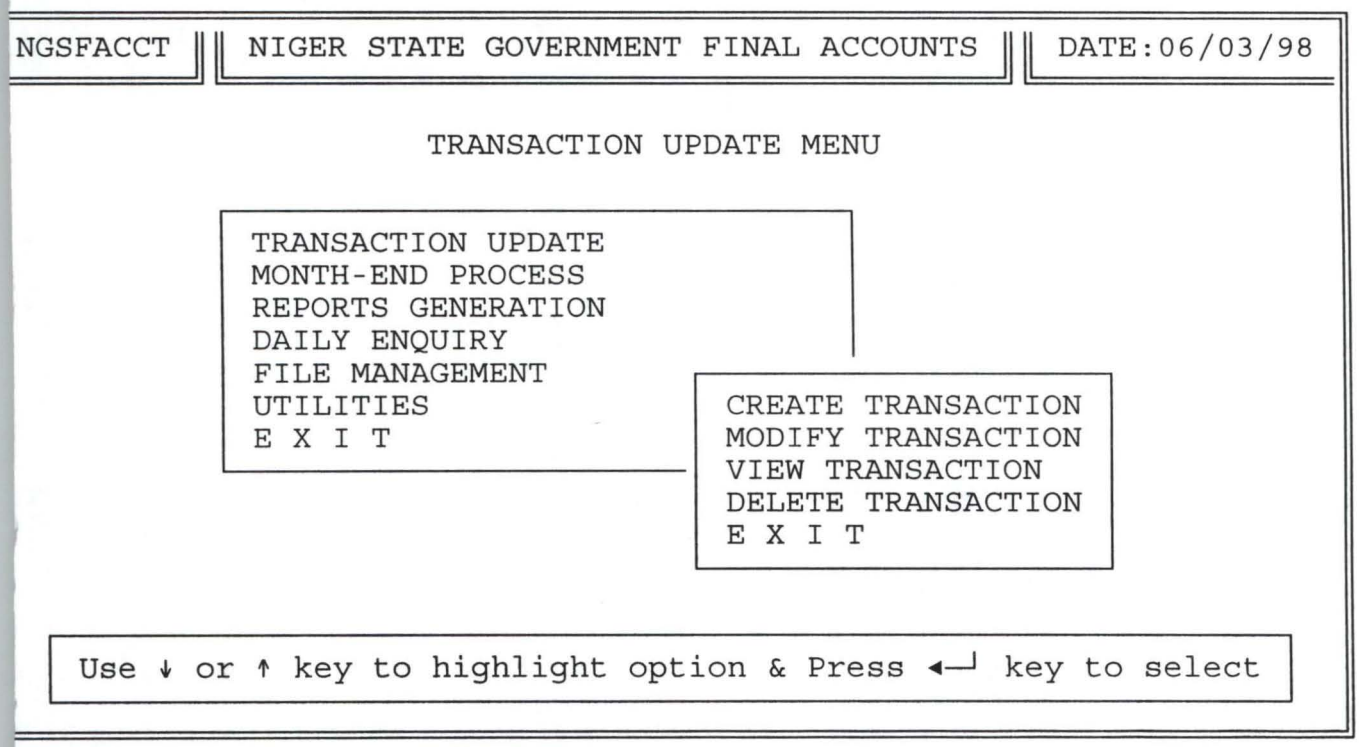
Kola R. (1996) Database Management System, Managing Databases Using dBASE IV (Lecture Note).

Lawrence S. O. (1986) Computers and Information System - An Introduction, Third Edition. Published by McGraw-Hill Book Company.

Neill G. (1985) Introduction To Computer Science, Third Edition. Published by West Publishing Company.

APPENDIX I (PROGRAM OUTPUT)





NIGER STATE MINISTRY OF FINANCE, MINNA

TRANSACTION ENTRY FORM

ACCOUNT CODE: 412/002 DATE OF TRANSACTION: 22/12/97

	DEPARTMENT/SECTION	SUBHEAD
DESCRIPTIONS:	GOVERNMENT HOUSE	TRAVEL AND TRANSPORT

AMOUNT OF TRANSACTION: # 150,000.00

TRANSFER VOUCHER NO: 00312 PERSONAL SUBHEAD NO: 003

(S)AVE (R)EPEAT (A)BANDON - Pick choice ...

NIGER STATE MINISTRY OF FINANCE, MINNA

TRANSACTION MODIFYING SCREEN

ACCOUNT CODE: 412/002 DATE OF TRANSACTION: 22/12/97

	DEPARTMENT/SECTION	SUBHEAD
DESCRIPTIONS	GOVERNMENT HOUSE	TRAVEL AND TRANSPORT

AMOUNT OF TRANSACTION: # 150,000.00

TRANSFER VOUCHER NO: 00312 PERSONAL SUBHEAD NO: 003

IS THIS THE RECORD TO MODIFY (Y/N) ...

LIST AND DETAILS OF TRANSACTIONS

E	ACCT CODE	TN. NO	PS. NO	RECEIPT(#)	PAYMENT(#)
/97	412/002	00312	003		150,000.
/97	401/002	003	003	500,000.00	
/97	417/003	0234	006		15,000.
/97	404/003	007	002	450,000.00	
/97	412/002	00312	003		150,000.

IT IS END OF FILE - Press "C" to continue ...

NIGER STATE MINISTRY OF FINANCE, MINNA

TRANSACTION DELETING FORM

ACCOUNT CODE: 412/002 DATE OF TRANSACTION: 21/12/97

	DEPARTMENT/SECTION	SUBHEAD
DESCRIPTIONS	GOVERNMENT HOUSE	TRAVEL AND TRANSPORT

AMOUNT OF TRANSACTION: # 150,000.00

TRANSFER VOUCHER NO: 00312 PERSONAL SUBHEAD NO: 003

IS THIS THE RECORD TO DELETE (Y/N) ...

YOU ARE READY TO PROCESS TRANSACTION

TO CONTINUE (Y/N) ...

NIGER STATE MINISTRY OF FINANCE, MINNA

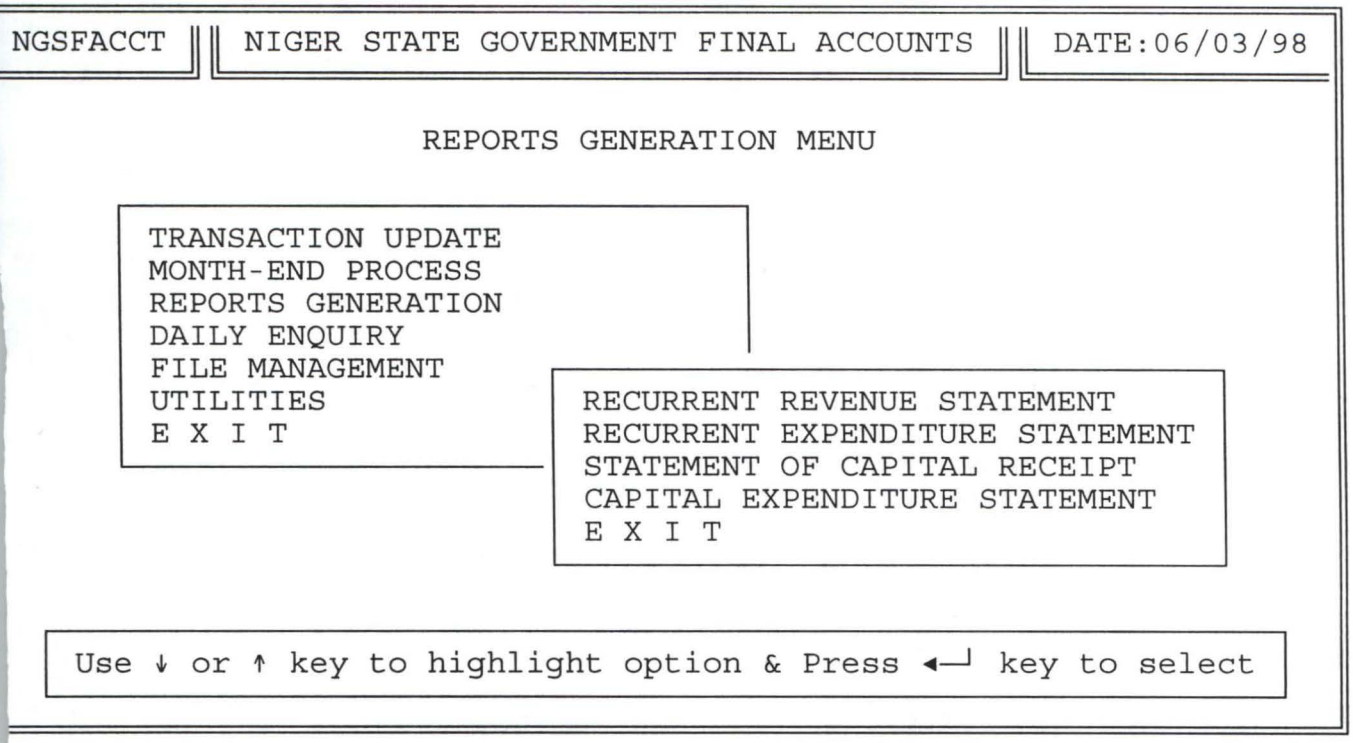
MONTH-END PROCESSING SCREEN

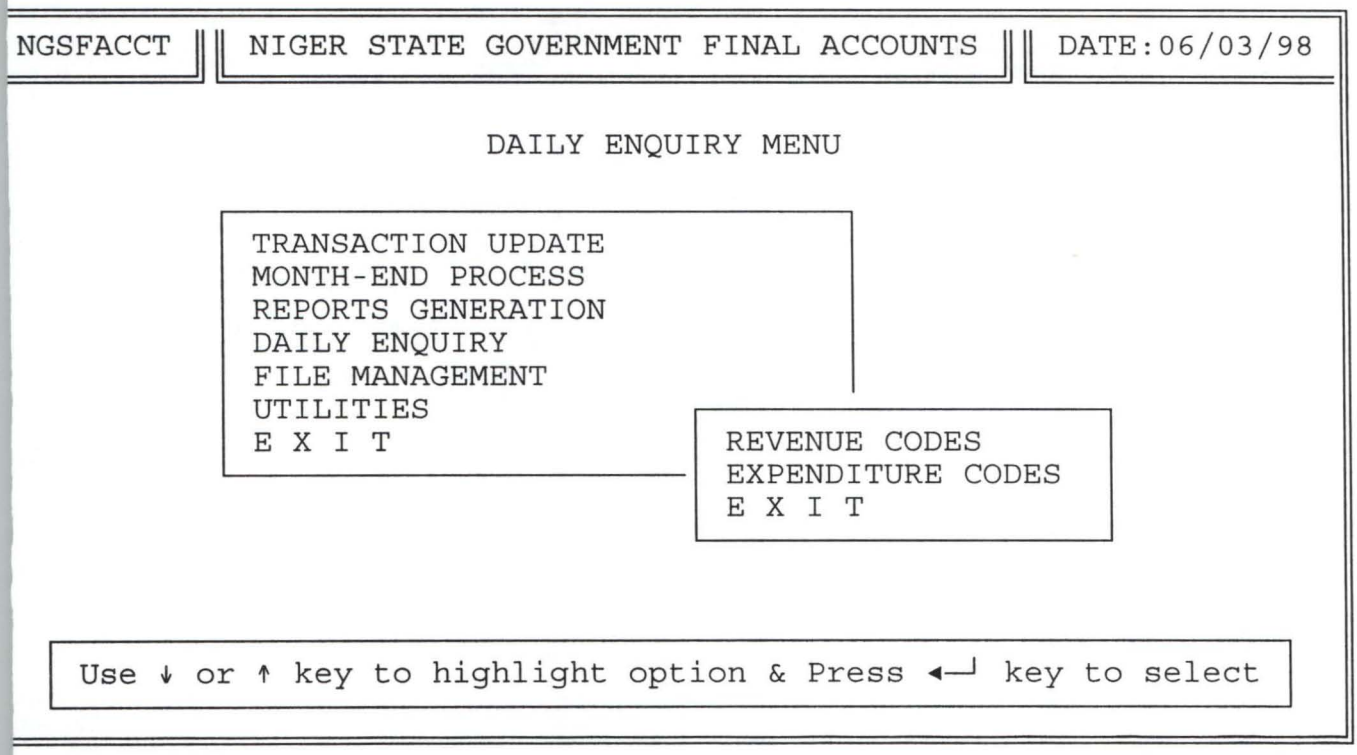
OPERATION: PROCESSING TRANSACTIONS

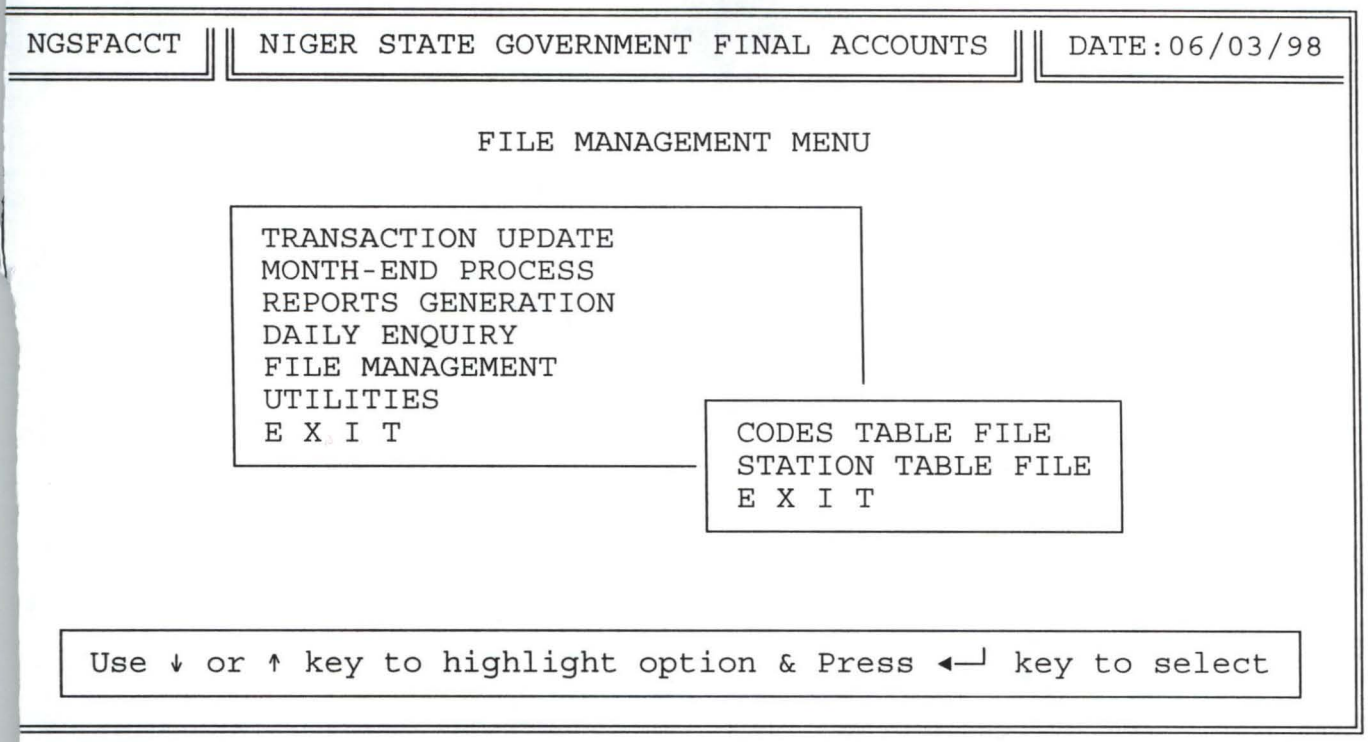
PERIOD: APRIL, 1997

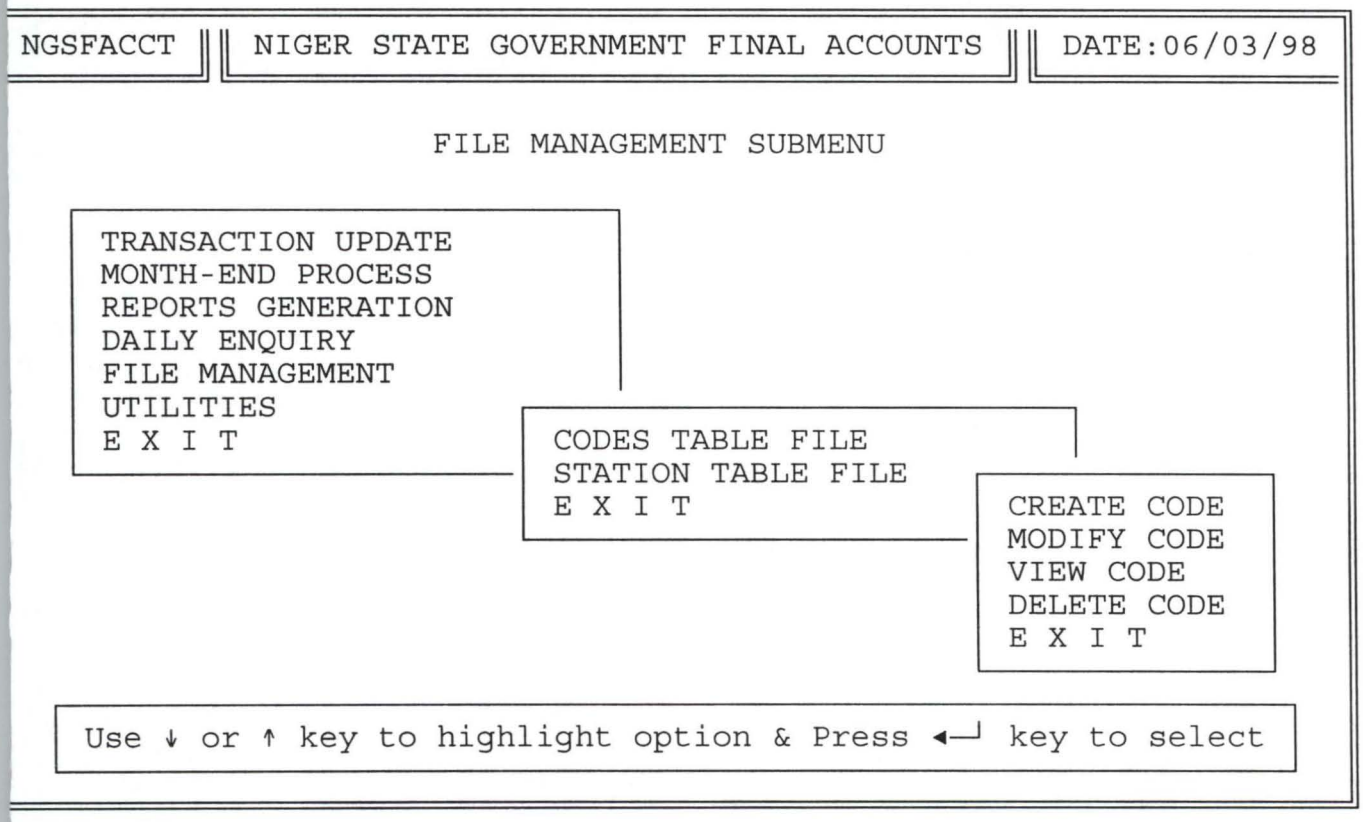
STATUS: 100% COMPLETED

PRESS ANY KEY TO EXIT ...


NGSFACCT
NIGER STATE GOVERNMENT FINAL ACCOUNTS
DATE:06/03/98
REPORTS GENERATION MENU
TRANSACTION UPDATE
MONTH-END PROCESS
REPORTS GENERATION
DAILY ENQUIRY
FILE MANAGEMENT
UTILITIES
E X I T
RECURRENT REVENUE STATEMENT
RECURRENT EXPENDITURE STATEMENT
STATEMENT OF CAPITAL RECEIPT
CAPITAL EXPENDITURE STATEMENT
E X I T
Use ↓ or ↑ key to highlight option & Press ◄┘ key to select


NGSFACCT
NIGER STATE GOVERNMENT FINAL ACCOUNTS
DATE:06/03/98
DAILY ENQUIRY MENU
TRANSACTION UPDATE
MONTH-END PROCESS
REPORTS GENERATION
DAILY ENQUIRY
FILE MANAGEMENT
UTILITIES
E X I T
REVENUE CODES
EXPENDITURE CODES
E X I T
Use ↓ or ↑ key to highlight option & Press ◄┘ key to select


NGSFACCT
NIGER STATE GOVERNMENT FINAL ACCOUNTS
DATE:06/03/98
FILE MANAGEMENT MENU
TRANSACTION UPDATE
MONTH-END PROCESS
REPORTS GENERATION
DAILY ENQUIRY
FILE MANAGEMENT
UTILITIES
E X I T
CODES TABLE FILE
STATION TABLE FILE
E X I T
Use ↓ or ↑ key to highlight option & Press ◄┘ key to select


NGSFACCT
NIGER STATE GOVERNMENT FINAL ACCOUNTS
DATE:06/03/98
FILE MANAGEMENT SUBMENU
TRANSACTION UPDATE
MONTH-END PROCESS
REPORTS GENERATION
DAILY ENQUIRY
FILE MANAGEMENT
UTILITIES
E X I T
CODES TABLE FILE
STATION TABLE FILE
E X I T
CREATE CODE
MODIFY CODE
VIEW CODE
DELETE CODE
E X I T
Use ↓ or ↑ key to highlight option & Press ◄┘ key to select

NIGER STATE MINISTRY OF FINANCE, MINNA

ACCOUNT CODE - ENTRY FORM

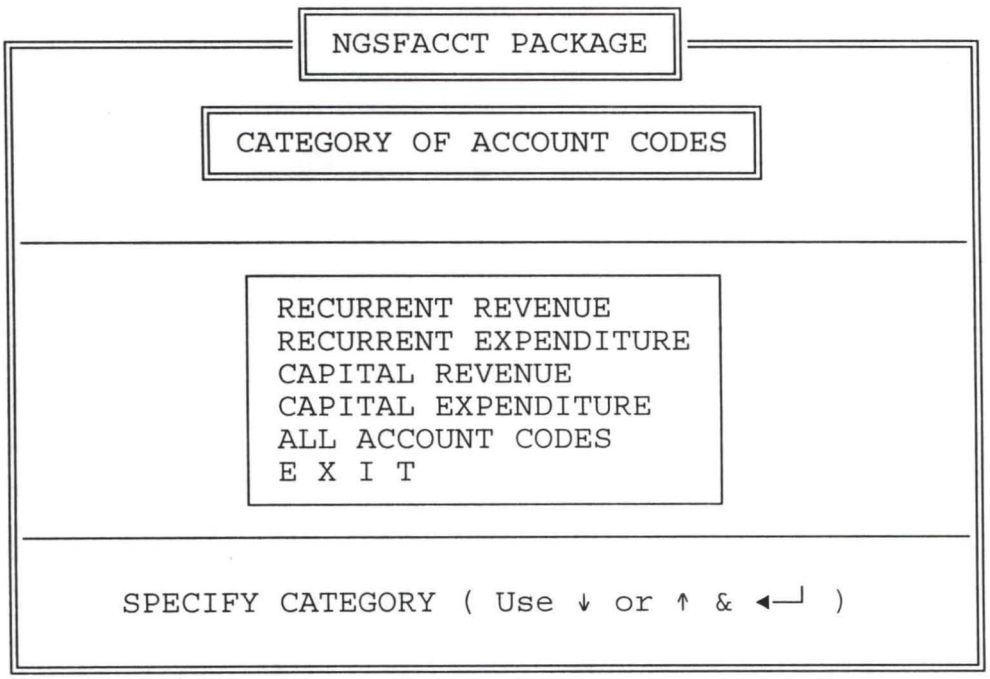
ACCOUNT CODE 414/2001 CATEGORY: RECURRENT EXPENDITURE

HEAD CODE: 414 DESCRIPTION: S.S.G.'S OFFICE

SUBHEAD CODE: 01 DESCRIPTION: SALARIES

SECTION CODE: 20 DESCRIPTION: ADMINISTRATION

(S)AVE (R)EPEAT (A)BANDON - Pick choice ...



LIST AND DETAILS OF AVAILABLE ACCOUNT CODES

CODE	MINISTRY/DEPT	SUBHEAD NAME	SECTION NAME
/001	GOVERNMENT HOUSE	SALARIES	
/002	GOVERNMENT HOUSE	TRAVEL AND TRANSPORT	
/003	GOVERNMENT HOUSE	UTILITY SERVICES	
/004	GOVERNMENT HOUSE	TEL.& POSTAL SERVICE	
/005	GOVERNMENT HOUSE	STATIONARY	
/006	GOVERNMENT HOUSE	MAIN-OFF. FURN.EQPMT	
/007	GOVERNMENT HOUSE	MAINT-VEH CAP.ASSETS	
/008	GOVERNMENT HOUSE	CONSULTANCY SERVICES	
/009	GOVERNMENT HOUSE	GRANT CONTR/SUBVENT.	
/010	GOVERNMENT HOUSE	TRAIN.& STAFF DVLPMT	
/011	GOVERNMENT HOUSE	ENTMNT & HOSPITALITY	
/012	GOVERNMENT HOUSE	MISCELLANEOUS EXPS.	
/402	GOVERNMENT HOUSE	TRAVEL AND TRANSPORT	BUILDING & ARCHITEC
/001	S.S.G.'S OFFICE	SALARIES	GENERAL SERVICES
/002	S.S.G.'S OFFICE	TRAVEL AND TRANSPORT	GENERAL SERVICES
/003	S.S.G.'S OFFICE	UTILITY SERVICES	GENERAL SERVICES

VIEWING ACCOUNT CODES - Press any key ...

NGSFACCT | NIGER STATE GOVERNMENT FINAL ACCOUNTS | DATE:06/03/98

UTILITIES MENU

TRANSACTION UPDATE
MONTH-END PROCESS
REPORTS GENERATION
DAILY ENQUIRY
FILE MANAGEMENT
UTILITIES
E X I T

ESTIMATES DATA ENTRY
NEW YEAR UPDATE
E X I T

Use ↓ or ↑ key to highlight option & Press ◄┘ key to select

APPENDIX II (PROGRAM DOCUMENTATION)

NGS.PRG

```
set talk off
set stat off
set scor off
set safe off
set wrap on
set date brit
do whil .t.
  set colo to bg
  clea
*  set colo to w/rb+,gr+/w,gr,w/n
  set colo to w+/b+,b+/w+,w+,b+/w+
  clea
  @ 2,5 clea to 23,74
  @ 2,5 to 4,16 doub
  @ 2,17 to 4,57 doub
  @ 2,58 to 4,74 doub
  @ 3,7 say 'NGSFACCT'
  @ 3,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
  @ 3,60 say 'DATE:'
*  set colo to rb+/w+
  @ 3,65 say date()
*  set colo to w+/rb+
  @ 2,5 to 23,74 doub
  @ 6,32 say 'M A I N  M E N U'
  @ 8,29 to 16,50
  @ 19,8 to 21,71
  @ 20,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
  @ 9,31 prom "TRANSACTION UPDATE"
  @ 10,31 prom "MONTH-END PROCESS"
  @ 11,31 prom "REPORTS GENERATION"
  @ 12,31 prom "DAILY ENQUIRY"
  @ 13,31 prom "FILE MANAGEMENT"
  @ 14,31 prom "UTILITIES"
  @ 15,31 prom "E X I T"
  menu to ch
```

```
  do case
    case ch==0
      loop
    case ch==1
      do acct1
    case ch==2
      do acct2
    case ch==3
      do acct3
    case ch==4
      do acct4
    case ch==5
      do acct5
    case ch==6
      do acct6
    othe
      exit
  endc
endd
clea
retu
```

ACCT1.PRG

```
@ 1,5 clea to 23,74
@ 1,5 to 3,16 doub
@ 1,17 to 3,57 doub
@ 1,58 to 3,74 doub
@ 2,7 say 'NGSFACCT'
@ 2,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 2,60 say 'DATE:'
*set colo to bg/w+
@ 2,65 say date()
*set colo to w+/bg
@ 1,5 to 23,74 doub
@ 5,28 say 'TRANSACTION UPDATE MENU'
@ 7,17 to 15,49
@ 20,8 to 22,71
@ 21,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
```

```
@ 8,19 say "TRANSACTION UPDATE" colo "b+/w+"
@ 9,19 say "MONTH-END PROCESS"
@ 10,19 say "REPORTS GENERATION"
@ 11,19 say "DAILY ENQUIRY"
@ 12,19 say "FILE MANAGEMENT"
@ 13,19 say "UTILITIES"
@ 14,19 say "E X I T"
@ 12,41 to 18,62
@ 15,42 say ' '
do whil .t.
  @ 13,43 prom "CREATE TRANSACTION"
  @ 14,43 prom "MODIFY TRANSACTION"
  @ 15,43 prom "VIEW TRANSACTION"
  @ 16,43 prom "DELETE TRANSACTION"
  @ 17,43 prom "E X I T"
  menu to ch2
  save scre
  do case
    case ch2==0
      loop
    case ch2==1
      do acct11
    case ch2==2
      do acct12
    case ch2==3
      do acct13
    case ch2==4
      do acct14
    othe
      exit
  endc
  rest scre
endd
clea
retu
```

ACCT2.PRG

```
use current
mprocess=process
```

```
mcdate=date
mth=month(mcdate)
cmth=cmonth(mcdate)
yr=year(mcdate)
use
clea
@ 10,20 to 14,59
@ 11,22 say 'YOU ARE READY TO PROCESS TRANSACTION'
@ 13,29 say 'TO CONTINUE (Y/N) ...'
k=0
do while k=0
  k=inkey()
  if uppe(chr(k)) $ 'YN'
    exit
  endi
  k=0
endd
clea
if uppe(chr(k)) $ 'N'
  retu
endi
use trans
if eof()
  @ 12,17 say 'NO TRANSACTIONS TO PROCESS - Press any key ...'
  set cons off
  wait
  set cons on
  use
  clea
  retu
endi
use
@ 2,5 to 22,74 doub
@ 1,19 to 3,60 doub
@ 2,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
@ 4,24 to 6,54 doub
@ 5,25 say ' MONTH-END PROCESSING SCREEN '
if mprocess='Y'
  @ 12,20 to 17,58
  @ 13,22 say 'YOU ARE ABOUT TO RE-PROCESS FOR THE'
  @ 14,22 say 'MONTH OF '+ uppe(cmth)+', '+ltri(str(yr))
```

```
  @ 16,29 say 'TO CONTINUE (Y/N) ...'
  K=0
  do while K=0
    k=inkey()
    if uppe(chr(k)) $ 'YN'
      exit
    endi
    k=0
  endd
  if uppe(chr(k)) $ 'N'
    clea
    retu
  endi
else
  @ 12,21 to 16,57
  @ 13,23 say 'PREPARING ALL NECESSARY FILES !!!'
  @ 15,29 say 'PLEASE DONT TOUCH ...'
  use account inde account
  do whil .not. eof()
    mactual1=actual1
    repl actual2 with mactual1
    skip
  endd
  use aledger
  appe from ledger.dbf
  use abalance
  appe from balance.dbf
  use ledger
  zap
  use balance
  zap
  appe from account.dbf
  inde on acode to balance
endi
@ 12,20 clea to 17,58
@ 13,28 to 15,51
@ 14,30 say 'ARRANGING FILES ...'
use trans
inde on head+subhead+dtoc(date) to temp
all=reccount()
use
```

```
sele 1
  use account inde account
sele 2
  use trans inde temp
sele 3
  use ledger
sele 4
  use balance inde balance
recnumb=0
mtotamt=0
sele 2
macode=acode
sele 1
seek macode
mactual2=actual2
mtype=type
sele 2
@ 13,28 clea to 15,51
@ 8,21 to 20,58
@ 16,22 to 16,57
@ 10,23 say 'OPERATION: PROCESSING TRANSACTIONS'
@ 12,23 say 'PERIOD: '+uppe(cmth)+', '+ltri(str(yr))
@ 14,23 say 'STATUS:   0% COMPLETED'
@ 18,30 say 'PLEASE KEEP OFF !!!'
do whil .not. eof()
  recnumb=recnumb+1
*  macode=acode
  mdate=date
  mamount=amount
  mhead=head
  msubhead=subhead
  msection=section
  mtvn=tvn
  mpsn=psn
  mactual2=mactual2+mamount
  mtotamt=mtotamt+mamount
  sele 3
  appe blan
  repl acode with macode,amount with mamount,subhead with msubhead
  repl head with mhead,tvn with mtvn,date with mdate,psn with mpsn
  repl section with msection,balance with mtotamt,type with mtype
```

```
  sele 2
  skip
  if macode< >acode
    resacode=acode
    sele 4
    seek macode
    repl actual1 with mactual2,totalm with mtotamt
    macode=resacode
    mtotamt=0
    sele 1
    repl actual1 with mactual2
    seek macode
    mactual2=actual2
    mtype=type
    sele 2
  endi
  sofar=recnumb/all*100
  @ 14,31 say sofar pict '999'
endd
clos all
use current
repl process with 'Y'
use
@ 18,27 say 'PRESS ANY KEY TO EXIT ...'
set cons off
wait
set cons on
clea
retu
```

ACCT3.PRG

```
@ 1,5 clea to 23,74
@ 1,5 to 3,16 doub
@ 1,17 to 3,57 doub
@ 1,58 to 3,74 doub
@ 2,7 say 'NGSFACCT'
@ 2,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 2,60 say 'DATE:'
@ 2,65 say date()
```

```
@ 1,5 to 23,74 doub
@ 5,28 say 'REPORTS GENERATION MENU'
@ 7,17 to 15,49
@ 20,8 to 22,71
@ 21,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 8,19 say "TRANSACTION UPDATE"
@ 9,19 say "MONTH-END PROCESS"
@ 10,19 say "REPORTS GENERATION" colo "b+/w+"
@ 11,19 say "DAILY ENQUIRY"
@ 12,19 say "FILE MANAGEMENT"
@ 13,19 say "UTILITIES"
@ 14,19 say "E X I T"
@ 11,41 to 18,62
@ 15,42 say ' '
do whil .t.
  @ 12,43 prom "TRANSACTION LIST"
  @ 13,43 prom "BUDGET REVIEW"
  @ 14,43 prom "TRIAL BALANCE"
  @ 15,43 prom "INCOME STATEMENT"
  @ 16,43 prom "BALANCE SHEET"
  @ 17,43 prom "E X I T"
  menu to ch2
  save scre
  do case
    case ch2==0
      loop
    case ch2==1
      do acct31
    case ch2==2
      do acct32
    case ch2==3
      do acct33
    case ch2==4
      do acct34
    case ch2==5
      do acct35
    othe
      exit
  endc
  rest scre
```

```
endd
clea
retu


ACCT4.PRG
do whil .t.
  clea
  @ 1,5 to 3,16 doub
  @ 1,17 to 3,57 doub
  @ 1,58 to 3,74 doub
  @ 2,7 say 'NGSFACCT'
  @ 2,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
  @ 2,60 say 'DATE:'
  @ 2,65 say date()
  clea gets
  @ 1,5 to 23,74 doub
  @ 5,31 say 'DAILY ENQUIRY MENU'
  @ 7,17 to 15,49
  @ 20,8 to 22,71
  @ 21,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
  @ 8,19 say "TRANSACTION UPDATE"
  @ 9,19 say "MONTH-END PROCESS"
  @ 10,19 say "REPORTS GENERATION"
  @ 11,19 say "DAILY ENQUIRY" colo "b+/w+"
  @ 12,19 say "FILE MANAGEMENT"
  @ 13,19 say "UTILITIES"
  @ 14,19 say "E X I T"
  @ 13,41 to 17,62
  @ 15,42 say ' '
  @ 14,43 prom "REVENUE CODES"
  @ 15,43 prom "EXPENDITURE CODES"
  @ 16,43 prom "E X I T"
  menu to ch2
  do case
    case ch2==0
      loop
    case ch2==1
      do acct41
    case ch2==2
```

```
      do acct42
    othe
      exit
  endc
endd
clea
retu
```

ACCT5.PRG

```
do whil .t.
  clea
  @ 1,5 to 3,16 doub
  @ 1,17 to 3,57 doub
  @ 1,58 to 3,74 doub
  @ 2,7 say 'NGSFACCT'
  @ 2,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
  @ 2,60 say 'DATE:'
  @ 2,65 say date()
  clea gets
  @ 1,5 to 23,74 doub
  @ 5,30 say 'FILE MANAGEMENT MENU'
  @ 7,17 to 15,49
  @ 20,8 to 22,71
  @ 21,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
  @ 8,19 say "TRANSACTION UPDATE"
  @ 9,19 say "MONTH-END PROCESS"
  @ 10,19 say "REPORTS GENERATION"
  @ 11,19 say "DAILY ENQUIRY"
  @ 12,19 say "FILE MANAGEMENT" colo "b+/w+"
  @ 13,19 say "UTILITIES"
  @ 14,19 say "E X I T"
  @ 13,41 to 17,62
  @ 15,42 say ' '
  @ 14,43 prom "CODES TABLE FILE"
  @ 15,43 prom "STATION TABLE FILE"
  @ 16,43 prom "E X I T"
  menu to ch2
  do case
```

```
    case ch2==0
      loop
    case ch2==1
      do acct51
    case ch2==2
      do acct52
    othe
      exit
  endc
endd
clea
retu
```

ACCT6.PRG

```
do whil .t.
  clea
  @ 1,5 to 3,16 doub
  @ 1,17 to 3,57 doub
  @ 1,58 to 3,74 doub
  @ 2,7 say 'NGSFACCT'
  @ 2,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
  @ 2,60 say 'DATE:'
  @ 2,65 say date()
  clea gets
  @ 1,5 to 23,74 doub
  @ 5,33 say 'UTILITIES MENU'
  @ 7,17 to 15,49
  @ 20,8 to 22,71
  @ 21,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
  @ 8,19 say "TRANSACTION UPDATE"
  @ 9,19 say "MONTH-END PROCESS"
  @ 10,19 say "REPORTS GENERATION"
  @ 11,19 say "DAILY ENQUIRY"
  @ 12,19 say "FILE MANAGEMENT"
  @ 13,19 say "UTILITIES" colo "b+/w+"
  @ 14,19 say "E X I T"
  @ 13,41 to 17,64
  @ 15,42 say ' '
```

```
  @ 14,43 prom "ESTIMATES DATA ENTRY"
  @ 15,43 prom "NEW YEAR UPDATE"
  @ 16,43 prom "E X I T"
  menu to ch2
  do case
    case ch2==0
      loop
    case ch2==1
      do acct61
    case ch2==2
      do acct62
    othe
      exit
  endc
endd
clea
retu
```

ACCT11.PRG

```
use current
mdate=date
mprocess=process
mth=month(mdate)
yr=year(mdate)
realyr=yr
namemth1=cmonth(mdate)
use
do whil .t.
  clea
  mthcode=' '
  @ 11,13 to 13,65
  @ 12,15 say 'Enter MONTH CODE (or Press "'+chr(17)+chr(196)+chr(217)+'"
KEY to EXIT):' get mthcode
  read
  if mthcode=' '
    clea
    retu
  endi
  no=len(ltrim(mthcode))
```

```
  if no=1
    mthcode="0"+ltrim(mthcode)
  endi
  if mthcode<'01' .or. mthcode>'12'
    @ 16,21 say 'ILLEGAL MONTH CODE - Press any key ...'
    set cons off
    wait
    set cons on
    loop
  endi
* if mth=val(mthcode)
    *if mprocess='Y'
   *    @ 16,25 say 'TRANSACTIONS ALREADY PROCESSED'
  *     @ 18,29 say 'TO CONTINUE (Y/N) ...'
 *      i=0
*       do whil i=0
      *  i=inkey()
     *    if upper(chr(i)) $ "YN"
    *       exit
   *      endi
  *       i=0
 *      endd
*       if upper(chr(i)) $ "N"
        *clea
       * retu
      *endi
     * use current
    *  repl process with 'N'
   * endi
  *  exit
 * else
*     if mth=12
       *mth=1
      * yr=yr+1
     *else
    *    mth=mth+1
   *  endi
 *    if mth< >val(mthcode)
*       @ 16,21 say 'INVALID MONTH CODE - Press any key ...'
       *set cons off
      * wait
```

```
   * set cons on
   *  loop
   * endi
  *  if mprocess='N'
*     @ 16,6 say 'TRANSACTION FOR CURRENT MONTH NOT YET
PROCESSED - Press any key ...'
     *set cons off
    * wait
   *  set cons on
   *  clea
  *   retu
 *  endi
*   nextmth=mth+1
   *nextmth=str(nextmth)
   * no=len(ltrim(nextmth))
  *  if no=1
 *     nextmth="0"+ltrim(nextmth)
*   endi
   *mdd="01"
   * myy=ltrim(str(yr))
  *  maindate=mdd+"/"+nextmth+"/"+myy
 *   maindate=ctod(maindate)
*   maindate=maindate-1
   *namemth2=cmonth(maindate)
   * clea
  *  @ 13,20 say "New month Transactions ? (Y/N)"
 *   i=0
*   do whil i=0
     *i=inkey()
    * if upper(chr(i)) $ "YN"
   *    exit
   *  endi
  *   i=0
 *   endd
*   if upper(chr(i)) $ "N"
    * clea
   *  retu
  *  endi
 *   @ 15,20 say "Have  you:  Extracted Ledger,"
*   @ 16,20 say "            Run Trial Balance and"
   *@ 17,20 say "            Printed necessary reports"
```

```
   * @ 18,20 say "            for the month of "+upper(namemth1)+",
"+ltrim(str(realyr))+" ?"
  *  @ 20,20 say "All of the above confirmed done ? (Y/N)"
 *   i=0
*    do whil i=0
     * i=inkey()
    *  if upper(chr(i)) $ "YN"
   *     exit
  *    endi
 *     i=0
*    endd
    *if upper(chr(i)) $ "N"
   *    clea
  *     retu
 *    endi
*    use atrans
    *appe from trans
   * use trans
  *  zap
 *   use current
*    repl date with maindate,process with "N"
*    use
*  endi
  exit
endd
sele 1
  use account inde account
sele 2
  use trans inde trans
sele 3
  use head inde head
sele 4
  use subhead inde subhead
sele 5
  use section inde section
repeat='N'
do whil .t.
  if repeat='N'
    clea
    @ 2,5 to 23,74 doub
    @ 1,19 to 3,60 doub
```

```
   @ 2,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
   @ 4,27 to 6,52 doub
   @ 5,28 say ' TRANSACTION ENTRY FORM '
   @ 8,7 say 'ACCOUNT CODE (or Press "'+chr(17)+chr(196)+chr(217)+'"
KEY to EXIT):'
   sele 1
   macode=spac(8)
   @ 8,50 get macode pict '999/9999'
   read
   if macode=spac(8)
     exit
   endi
   seek macode
   if .not. foun()
     @ 20,17 to 22,61
     @ 21,19 say 'INVALID ACCOUNT CODE - Press any key ...'
     set cons off
     wait
     set cons on
     loop
   endi
   mhead=head
   msubhead=subhead
   msection=section
   mtype=type
   @ 8,7 clea to 8,60
   @ 9,7 say 'ACCOUNT CODE:' get macode
   clea gets
   mdate=ctod('  /  /  ')
   mtvn=spac(6)
   mpsn=spac(7)
   mttype=spac(1)
   mamount=0
*    @ 9,44 say 'DATE OF TRANSACTION:' get mdate
*    read
   sele 3
   seek mhead
   mdesc1=desc
   sele 4
   if mtype< >'CR'
     sele 4
```

```
    seek msubhead
    set filt to code=msubhead
    if mtype='RE'
      loca for type=mtype
    else
      loca for head=mhead
    endi
    mdesc2=desc
  else
    mdesc2=spac(20)
  endi
  @ 11,7 to 14,72
  @ 12,23 say 'DEPARTMENT/SECTION'
  @ 12,50 say 'SUBHEAD'
  @ 13,8 say 'DESCRIPTIONS:'
  @ 13,23 get mdesc1
  @ 13,50 get mdesc2
  clea gets
else
  repeat='N'
  @ 20,12 clea to 22,67
endi
do whil .t.
  @ 9,44 say 'DATE OF TRANSACTION:' get mdate
  read
  mth=month(mdate)
  yr2=year(mdate)
  if mth<>val(mthcode) .or. yr<>yr2
    if mth<>val(mthcode) .and. yr<>yr2
      @ 20,21 to 22,57
      @ 21,23 say 'INVALID DATE - Press any key ...'
      set cons off
      wait
      set cons on
      mdate=ctod('  /  /  ')
      @ 20,21 clea to 22,57
      loop
    endi
    if mth<>val(mthcode)
      @ 20,21 to 22,58
      @ 21,23 say 'INVALID MONTH - Press any key ...'
```

```
        set cons off
        wait
        set cons on
        mdate=ctod('  /  /  ')
        @ 20,21 clea to 22,58
        loop
      endi
      if yr<>yr2
        @ 20,21 to 22,57
        @ 21,23 say 'INVALID YEAR - Press any key ...'
        set cons off
        wait
        set cons on
        mdate=ctod('  /  /  ')
        @ 20,21 clea to 22,57
        loop
      endi
    endi
    exit
  endd
* @ 14,7 say 'TRANSACTION TYPE (Enter "D" for DEBIT or "C" for CREDIT):'
* do whil .t.
 *  @ 14,65 get mttype pict '!'
  * read
   *if mttype $ 'DC'
    * exit
*   endi
 *  mttype=spac(1)
* endd
  @ 16,7 say 'AMOUNT OF TRANSACTION: #'
  @ 16,31 get mamount pict '999,999,999,999.99'
  @ 18,7 say 'TRANSFER VOUCHER NO:' get mtvn
  @ 18,44 say 'PERSONAL SUBHEAD NO:' get mpsn
  read
  @ 20,12 to 22,67
  @ 21,14 say '(S)AVE   (R)EPEAT   (A)BANDON   -   Pick choice ...'
  resp=0
  do whil resp=0
    resp=inkey()
    if uppe(chr(resp)) $ 'SRA'
      exit
```

```
    endi
    resp=0
  endd
  if uppe(chr(resp))$'R'
    repeat='Y'
    loop
  endi
  if uppe(chr(resp))$'S'
    sele 2
    appe blan
    repl acode with macode,date with mdate,amount with mamount
    repl head with mhead,subhead with msubhead,section with msection
    repl tvn with mtvn,psn with mpsn,type with mtype
  endi
endd
clos all
clea
retu
```

ACCT12.PRG

```
sele 1
  use account inde account
sele 2
  use trans inde trans
sele 3
  use head inde head
sele 4
  use subhead inde subhead
sele 5
  use section inde section
do whil .t.
  clea
  @ 2,5 to 23,74 doub
  @ 1,19 to 3,60 doub
  @ 2,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
  @ 4,24 to 6,55 doub
  @ 5,25 say ' TRANSACTION MODIFYING SCREEN '
  @ 8,7 say 'ACCOUNT CODE (or Press "'+chr(17)+chr(196)+chr(217)+'" KEY
to EXIT):'
```

```
sele 1
macode=spac(8)
@ 8,50 get macode pict '999/9999'
read
if macode=spac(8)
  exit
endi
seek macode
if .not. foun()
  @ 20,17 to 22,61
  @ 21,19 say 'INVALID ACCOUNT CODE - Press any key ...'
  set cons off
  wait
  set cons on
  loop
endi
sele 2
seek macode
if .not. foun()
  @ 20,15 to 22,64
  @ 21,17 say 'TRANSACTION DOES NOT EXIST - Press any key ...'
  set cons off
  wait
  set cons on
  loop
endi
mhead=head
msubhead=subhead
msection=section
mtype=type
sele 3
seek mhead
mdesc1=desc
sele 4
if mtype< >'CR'
  seek msubhead
  set filt to code=msubhead
  if mtype='RE'
    loca for type=mtype
  else
    loca for head=mhead
```

```
    endi
    mdesc2=desc
  else
    mdesc2=spac(20)
  endi
  sele 2
  set filt to acode=macode
  @ 8,7 clea to 8,60
  @ 9,7 say 'ACCOUNT CODE:' get macode
  @ 9,44 say 'DATE OF TRANSACTION:'
  @ 11,7 to 14,71
  @ 12,22 say 'DEPARTMENT/SECTION'
  @ 12,49 say 'SUBHEAD'
  @ 13,8 say 'DESCRIPTIONS'
  @ 13,22 get mdesc1
  @ 13,49 get mdesc2
  @ 16,7 say 'AMOUNT OF TRANSACTION: #'
  @ 18,7 say 'TRANSFER VOUCHER NO:'
  @ 18,39 say 'PERSONAL SUBHEAD NO:'
  clea gets
  do whil .not. eof()
    mdate=date
    mtvn=tvn
    mpsn=psn
*   mttype=ttype
    mamount=amount
    @ 9,65 get mdate
    @ 16,32 get mamount pict '999,999,999,999.99'
    @ 18,28 get mtvn
    @ 18,60 get mpsn
    @ 20,19 to 22,60
    @ 21,21 say 'IS THIS THE RECORD TO MODIFY (Y/N) ...'
    resp=0
    do whil resp=0
      resp=inkey()
      if uppe(chr(resp)) $ 'YN'
        exit
      endi
      resp=0
    endd
    @ 20,19 clea to 22,60
```

```
    if uppe(chr(resp))$'Y'
      read
      exit
    else
      clea gets
      skip
      if eof()
        @ 20,19 to 22,60
        @ 21,21 say 'IT IS END OF FILE - Press any key ...'
        set cons off
        wait
        set cons on
      endi
    endi
  endd
  if uppe(chr(resp))$'Y'
    @ 20,9 to 22,70
    @ 21,11 say '(S)AVE CHANGES     (A)BANDON CHANGES  -   Pick choice
...'
    resp=0
    do whil resp=0
      resp=inkey()
      if uppe(chr(resp)) $ 'SRA'
        exit
      endi
      resp=0
    endd
    if uppe(chr(resp))$'S'
      sele 2
      repl acode with macode,date with mdate,amount with mamount
      repl head with mhead,subhead with msubhead,section with msection
      repl tvn with mtvn,psn with mpsn,type with mtype
    endi
  endi
endd
clos all
clea
retu
```

ACCT13.PRG

```
clea
use trans
*@ 0,0 to 24,79 doub
@ 0,24 say 'LIST AND DETAILS OF TRANSACTIONS'
@ 1,24 to 1,55 doub
@ 2,0 to 2,79
@ 3,2 say 'DATE'
@ 3,11 say 'ACCT CODE'
@ 3,23 say 'TN. NO'
@ 3,32 say 'PS. NO'
@ 3,44 say 'RECEIPT(#)'
@ 3,65 say 'PAYMENT(#)'
@ 4,0 to 4,79
@ 23,0 to 23,79
@ 3,9 to 22,9
@ 3,21 to 22,21
@ 3,30 to 22,30
@ 3,39 to 22,39
@ 3,60 to 22,60
ch=0
r=4
do whil .not. eof()
  r=r+1
  mdate=date
  macode=acode
  mamount=amount
  mtype=type
  mtvn=tvn
  mpsn=psn
  @ r,0 say mdate
  @ r,12 say macode
  @ r,23 say mtvn
  @ r,32 say mpsn
  if mtype='RR' .or. mtype='CR'
    pos=41
  else
    pos=62
  endi
  @ r,pos say mamount pict '999,999,999,999.99'
  skip
  if .not. eof()
```

```
    if r=22
      r=4
      @ 24,19 say 'VIEWING TRANSACTIONS - Press any key ...'
      set cons off
      wait
      set cons on
      @ 5,0 clea to 22,8
      @ 5,10 clea to 22,20
      @ 5,22 clea to 22,29
      @ 5,31 clea to 22,38
      @ 5,40 clea to 22,59
      @ 5,61 clea to 22,79
      @ 24,15 clea to 24,64
    endi
  else
    @ 24,17 say 'IT IS END OF FILE - Press "C" to continue ...'
    resp=0
    do whil resp=0
      resp=inkey()
      if uppe(chr(resp))$'C'
        exit
      endi
      resp=0
    endd
  endi
endd
clos all
clea
retu
```

ACCT14.PRG

```
sele 1
  use account inde account
sele 2
  use trans inde trans
sele 3
  use head inde head
sele 4
  use subhead inde subhead
```

```
sele 5
  use section inde section
do whil .t.
  clea
  @ 2,5 to 23,74 doub
  @ 1,19 to 3,60 doub
  @ 2,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
  @ 4,25 to 6,53 doub
  @ 5,26 say ' TRANSACTION DELETING FORM '
  @ 8,7 say 'ACCOUNT CODE (or Press "'+chr(17)+chr(196)+chr(217)+'" KEY
to EXIT):'
  sele 1
  macode=spac(8)
  @ 8,50 get macode pict '999/9999'
  read
  if macode=spac(8)
    exit
  endi
  seek macode
  if .not. foun()
    @ 20,17 to 22,61
    @ 21,19 say 'INVALID ACCOUNT CODE - Press any key ...'
    set cons off
    wait
    set cons on
    loop
  endi
  mhead=head
  msubhead=subhead
  msection=section
  mtype=type
  sele 2
  seek macode
  if .not. foun()
    @ 20,15 to 22,64
    @ 21,17 say 'TRANSACTION DOES NOT EXIST - Press any key ...'
    set cons off
    wait
    set cons on
    loop
  endi
```

```
sele 3
seek mhead
mdesc1=desc
sele 4
if mtype< >'CR'
  seek msubhead
  set filt to code=msubhead
  if mtype='RE'
    loca for type=mtype
  else
    loca for head=mhead
  endi
  mdesc2=desc
else
  mdesc2=spac(20)
endi
sele 2
set filt to acode=macode
@ 8,7 clea to 8,60
@ 9,7 say 'ACCOUNT CODE:' get macode
@ 9,44 say 'DATE OF TRANSACTION:'
@ 11,7 to 14,71
@ 12,22 say 'DEPARTMENT/SECTION'
@ 12,49 say 'SUBHEAD'
@ 13,8 say 'DESCRIPTIONS'
@ 13,22 get mdesc1
@ 13,49 get mdesc2
@ 16,7 say 'AMOUNT OF TRANSACTION: #'
@ 18,7 say 'TRANSFER VOUCHER NO:'
@ 18,39 say 'PERSONAL SUBHEAD NO:'
do whil .not. eof()
  mdate=date
  mtvn=tvn
  mpsn=psn
*   mttype=ttype
  mamount=amount
  @ 9,65 get mdate
  @ 16,32 get mamount pict '999,999,999,999.99'
  @ 18,28 get mtvn
  @ 18,60 get mpsn
  @ 20,19 to 22,60
```

```
    @ 21,21 say 'IS THIS THE RECORD TO DELETE (Y/N) ...'
    resp=0
    do whil resp=0
      resp=inkey()
      if uppe(chr(resp)) $ 'YN'
        exit
      endi
      resp=0
    endd
    @ 20,19 clea to 22,60
    if uppe(chr(resp))$'Y'
      exit
    else
      skip
      if eof()
        @ 20,19 to 22,60
        @ 21,21 say 'IT IS END OF FILE - Press any key ...'
        set cons off
        wait
        set cons on
      endi
    endi
  endd
endd
clos all
clea
retu
```

ACCT31.PRG

```
clea
use trans
inde on head+subhead+dtoc(date) to temp
sele 1
  use trans inde temp
sele 2
  use head inde head
@ 0,24 say 'DETAILS OF MONTHLY TRANSACTIONS'
@ 1,24 to 1,54
sele 1
```

```
mhead=head
sele 2
seek mhead
mdesc1=desc
@ 2,0 say 'HEAD: '+mdesc1
@ 3,0 to 3,79
@ 4,2 say 'DATE'
@ 4,11 say 'ACCT CODE'
@ 4,23 say 'VOUCH NO'
@ 4,35 say 'RECEIPT(#)'
@ 4,50 say 'PAYMENT(#)'
@ 4,67 say 'BALANCE(#)'
@ 5,0 to 5,79
@ 22,0 to 22,79
@ 4,9 to 21,9
@ 4,21 to 21,21
@ 4,32 to 21,32
@ 4,47 to 21,47
@ 4,62 to 21,62
r=5
stor 'N' to flag
stor 0 to receipt,payment,add
sele 1
do whil .not. eof()
  r=r+1
  mdate=date
  macode=acode
  mtvn=tvn
  mamount=amount
  mtype=type
  mhead=head
  msubhead=subhead
  mpsn=psn
  add=add+mamount
  @ r,0 say mdate
  @ r,11 say macode
  @ r,24 say mtvn
  if mtype='RR' .or. mtype='CR'
    @ r,34 say mamount pict '9,999,999.99'
  else
    @ r,49 say mamount pict '9,999,999.99'
```

```
endi
skip
if mhead< >head
  @ r,64 say add pict '999,999,999.99'
  add=0
  mhead=head
  sele 2
  seek mhead
  mdesc1=desc
  if r>17
    flag='Y'
  else
    if eof()
      exit
    endi
    r=r+1
    @ r,0 clea to r,79
    r=r+1
    @ r,0 clea to r,79
    @ r,0 say 'HEAD: '+mdesc1
  endi
  sele 1
endi
if r>20 .or. flag='Y'
  if flag='Y'
    flag='N'
  endi
  @ 23,20 say 'TRANSACTION LISTING - Press any key ...'
  set cons off
  wait
  set cons on
  @ 6,0 clea to 21,8
  @ 6,10 clea to 21,20
  @ 6,22 clea to 21,31
  @ 6,33 clea to 21,46
  @ 6,48 clea to 21,61
  @ 6,63 clea to 21,79
    @ 4,9 to 21,9
    @ 4,21 to 21,21
    @ 4,32 to 21,32
    @ 4,47 to 21,47
```

```
      @ 4,62 to 21,62
    r=5
  endi
endd
wait
clos all
eras temp.ntx
clea
retu
```

ACCT41.PRG

```
clea
@ 0,5 to 2,16 doub
@ 0,17 to 2,57 doub
@ 0,58 to 2,74 doub
@ 1,7 say 'NGSFACCT'
@ 1,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 1,60 say 'DATE:'
@ 1,65 say date()
clea gets
@ 0,5 to 24,74 doub
@ 5,31 say 'DAILY ENQUIRY MENU'
@ 7,7 to 15,35
@ 21,8 to 23,71
@ 22,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 8,9 say "TRANSACTION UPDATE"
@ 9,9 say "MONTH-END PROCESS"
@ 10,9 say "REPORTS GENERATION"
@ 11,9 say "DAILY ENQUIRY" colo "b+/w+"
@ 12,9 say "FILE MANAGEMENT"
@ 13,9 say "UTILITIES"
@ 14,9 say "E X I T"
@ 13,29 to 17,57
@ 15,30 say ' '
@ 14,31 say "REVENUE CODES" colo "b+/w+"
@ 15,31 say "EXPENDITURE CODES"
@ 16,31 say "E X I T"
@ 15,51 to 19,72
```

```
@ 17,52 say ' '
do whil .t.
  @ 16,53 prom 'TOTAL REVENUE'
  @ 17,53 prom 'INDIVIDUAL REVENUE'
  @ 18,53 prom 'E X I T'
  menu to ch3
  save scre
  do case
    case ch3==0
      loop
    case ch3==1
      do acct511
    case ch3==2
      do acct512
    othe
      exit
  endc
  rest scre
endd
clea
retu
```

ACCT42.PRG

```
clea
@ 0,5 to 2,16 doub
@ 0,17 to 2,57 doub
@ 0,58 to 2,74 doub
@ 1,7 say 'NGSFACCT'
@ 1,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 1,60 say 'DATE:'
@ 1,65 say date()
clea gets
@ 0,5 to 24,74 doub
@ 5,31 say 'DAILY ENQUIRY MENU'
@ 7,7 to 15,35
@ 21,8 to 23,71
@ 22,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 8,9 say "TRANSACTION UPDATE"
```

```
@ 9,9 say "MONTH-END PROCESS"
@ 10,9 say "REPORTS GENERATION"
@ 11,9 say "DAILY ENQUIRY" colo "b+/w+"
@ 12,9 say "FILE MANAGEMENT"
@ 13,9 say "UTILITIES"
@ 14,9 say "E X I T"
@ 13,27 to 17,55
@ 15,28 say ' '
@ 14,29 say "REVENUE CODES"
@ 15,29 say "EXPENDITURE CODES" colo "b+/w+"
@ 16,29 say "E X I T"
@ 15,47 to 19,72
@ 17,48 say ' '
do whil .t.
  @ 16,49 prom 'TOTAL EXPENDITURE'
  @ 17,49 prom 'INDIVIDUAL EXPENDITURE'
  @ 18,49 prom 'E X I T'
  menu to ch3
  save scre
  do case
    case ch3==0
      loop
    case ch3==1
      do acct511
    case ch3==2
      do acct512
    othe
      exit
  endc
  rest scre
endd
clea
retu
```

ACCT51.PRG

```
clea
@ 0,5 to 2,16 doub
@ 0,17 to 2,57 doub
@ 0,58 to 2,74 doub
```

```
@ 1,7 say 'NGSFACCT'
@ 1,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 1,60 say 'DATE:'
@ 1,65 say date()
clea gets
@ 0,5 to 24,74 doub
@ 4,28 say 'FILE MANAGEMENT SUBMENU'
@ 6,9 to 14,37
@ 21,8 to 23,71
@ 22,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 7,11 say "TRANSACTION UPDATE"
@ 8,11 say "MONTH-END PROCESS"
@ 9,11 say "REPORTS GENERATION"
@ 10,11 say "DAILY ENQUIRY"
@ 11,11 say "FILE MANAGEMENT" colo "b+/w+"
@ 12,11 say "UTILITIES"
@ 13,11 say "E X I T"
@ 12,32 to 16,60
@ 14,33 say ' '
@ 13,34 say "CODES TABLE FILE" colo "b+/w+"
@ 14,34 say "STATION TABLE FILE"
@ 15,34 say "E X I T"
@ 14,55 to 20,70
@ 16,56 say ' '
do whil .t.
  @ 15,57 prom 'CREATE CODE'
  @ 16,57 prom 'MODIFY CODE'
  @ 17,57 prom 'VIEW CODE'
  @ 18,57 prom 'DELETE CODE'
  @ 19,57 prom 'E X I T'
  menu to ch3
  save scre
  do case
    case ch3==0
      loop
    case ch3==1
      do acct511
    case ch3==2
      do acct512
    case ch3==3
```

```
      do acct513
    case ch3==4
      do acct514
    othe
      exit
  endc
  rest scre
endd
clea
retu
```

ACCT52.PRG

```
clea
@ 0,5 to 2,16 doub
@ 0,17 to 2,57 doub
@ 0,58 to 2,74 doub
@ 1,7 say 'NGSFACCT'
@ 1,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 1,60 say 'DATE:'
set colo to n/w
@ 1,65 say date()
set colo to
@ 0,5 to 24,74 doub
@ 4,28 say 'SUBHEAD TABLE FILE MENU'
@ 5,9 to 13,32
@ 21,8 to 23,71
@ 22,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 6,11 say "TRANSACTION UPDATE"
@ 7,11 say "MONTH-END PROCESS"
@ 8,11 say "REPORTS GENERATION"
@ 9,11 say "DAILY ENQUIRY"
@ 10,11 say "FILE MANAGEMENT"
@ 11,11 say "UTILITIES"
@ 12,11 say "E X I T"
@ 11,32 to 16,55
*@ 14,42 say ' '
@ 12,34 say "HEAD TABLE FILE"
@ 13,34 say "SUBHEAD TABLE FILE"
```

```
@ 14,34 say "STATION TABLE FILE"
@ 15,34 say "E X I T"
@ 13,55 to 19,70
do whil .t.
  @ 14,57 prom 'CREATE CODE'
  @ 15,57 prom 'MODIFY CODE'
  @ 16,57 prom 'VIEW CODE'
  @ 17,57 prom 'DELETE CODE'
  @ 18,57 prom 'E X I T'
  menu to ch3
  do case
    case ch3==0
      loop
    case ch3==1
      acct511()
    case ch3==2
      acct512()
    case ch3==3
      acct513()
    case ch3==4
      acct514()
    othe
      exit
  endc
endd
clea
retu
```

ACCT52.PRG

```
clea
@ 0,5 to 2,16 doub
@ 0,17 to 2,57 doub
@ 0,58 to 2,74 doub
@ 1,7 say 'NGSFACCT'
@ 1,19 say 'NIGER STATE GOVERNMENT FINAL ACCOUNTS'
@ 1,60 say 'DATE:'
set colo to n/w
@ 1,65 say date()
set colo to
```

```
@ 0,5 to 24,74 doub
@ 4,28 say 'SUBHEAD TABLE FILE MENU'
@ 5,9 to 13,32
@ 21,8 to 23,71
@ 22,10 say 'Use '+chr(25)+' or '+chr(24)+' key to highlight option & Press
'+chr(17)+chr(196)+chr(217) +' key to select'
@ 6,11 say "TRANSACTION UPDATE"
@ 7,11 say "MONTH-END PROCESS"
@ 8,11 say "REPORTS GENERATION"
@ 9,11 say "DAILY ENQUIRY"
@ 10,11 say "FILE MANAGEMENT"
@ 11,11 say "UTILITIES"
@ 12,11 say "E X I T"
@ 11,32 to 16,55
*@ 14,42 say ' '
@ 12,34 say "HEAD TABLE FILE"
@ 13,34 say "SUBHEAD TABLE FILE"
@ 14,34 say "STATION TABLE FILE"
@ 15,34 say "E X I T"
@ 13,55 to 19,70
do whil .t.
  @ 14,57 prom 'CREATE CODE'
  @ 15,57 prom 'MODIFY CODE'
  @ 16,57 prom 'VIEW CODE'
  @ 17,57 prom 'DELETE CODE'
  @ 18,57 prom 'E X I T'
  menu to ch3
  do case
    case ch3==0
      loop
    case ch3==1
      acct511()
    case ch3==2
      acct512()
    case ch3==3
      acct513()
    case ch3==4
      acct514()
    othe
      exit
  endc
```

```
endd
clea
retu
```

ACCT61.PRG

```
sele 1
  use account inde account2
sele 2
  use head inde head
sele 3
  use subhead inde subhead
sele 4
  use section inde section
declare amt[100]
k=1
do whil k<=100
  amt[k]=0
  k=k+1
endd
do whil .t.
  clea
  mhead=spac(3)
  @ 1,3 to 24,76 doub
  @ 22,4 to 22,75
  @ 0,19 to 2,60 doub
  @ 1,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
  @ 3,28 to 5,51 doub
  @ 4,30 say 'ESTIMATES ENTRY FORM'
  @ 7,5 say 'HEAD CODE (or Press "'+chr(17)+chr(196)+chr(217)+'" KEY to
EXIT):'
  @ 7,45 get mhead
  read
  if mhead=spac(3)
    exit
  endi
  sele 1
  seek mhead
  if .not. foun()
    @ 23,21 say 'INVALID HEAD CODE - Press any key ...'
```

```
    set cons off
    wait
    set cons on
    loop
  endi
  mtype=type
  sele 2
  seek mhead
  mdesc1=desc
  @ 7,14 clea to 7,55
  @ 7,14 say ':' get mhead
  @ 7,33 say 'MINISTRY/DEPARTMENT:' get mdesc1
  clea gets
  sele 1
  set filt to head=mhead
*  inde on acode to temp
  go top
  @ 8,4 to 8,75
  @ 10,4 to 10,75
  @ 9,10 to 21,10
  @ 9,25 to 21,25
  @ 9,48 to 21,48
  @ 9,5 say 'S/NO'
  @ 9,12 say 'ACCOUNT CODE'
  @ 9,28 say 'EXPENDITURE TYPE'
  @ 9,58 say 'AMOUNT(#)'
  r=9
  c=1
  knt=0
  sno=0
  first='Y'
  present=recno()
  do whil .not. eof()
    r=r+2
    sno=sno+1
    knt=knt+1
    macode=acode
    amt[knt]=estimated
    msubhead=subhead
    if mtype< >'CR'
      sele 3
```

```
  seek msubhead
  set filt to code=msubhead
  if mtype='RE'
    loca for type=mtype
  else
    loca for head=mhead
  endi
  mdesc2=desc
else
  mdesc2=spac(20)
endi
@ r,6 say sno pict '99'
@ r,14 say macode
@ r,27 say mdesc2
@ r,50 get amt[knt] pict '99,999,999,999,999,999.99'
sele 1
skip
if .not. eof()
  if r>=21
    clea gets
    r=9
    do whil c<=knt
      r=r+2
      @ r,50 get amt[c] pict '99,999,999,999,999,999.99'
      read
      c=c+1
    endd
    @ 23,19 say 'Press any key to go to the next screen ...'
    set cons off
    wait
    set cons on
    r=9
    @ 11,4 clea to 21,9
    @ 11,11 clea to 21,24
    @ 11,26 clea to 21,47
    @ 11,49 clea to 21,75
    @ 23,15 clea to 23,64
  endi
else
  r=9
  clea gets
```

```
      do whil c<=knt
        r=r+2
        @ r,50 get amt[c] pict '99,999,999,999,999,999.99'
        read
        c=c+1
      endd
    endi
  endd
  @ 23,14 say '(S)AVE   (R)EPEAT   (A)BANDON   -   Pick choice ...'
  resp=0
  do whil .t.
    resp=inkey()
    if uppe(chr(resp)) $ 'SRA'
      exit
    endi
  endd
  if uppe(chr(resp)) $ 'R'
    repeat='Y'
    loop
  endi
  if uppe(chr(resp)) $ 'S'
    sele 1
    go top
    k=0
    do whil .not. eof()
      k=k+1
      repl estimated with amt[k]
      skip
    endd
  endi
endd
clos all
clea
retu
```

ACCT511.PRG

```
sele 1
  use account inde account
sele 2
```

```
  use head inde head
sele 3
  use subhead inde subhead
sele 4
  use section inde section
repeat='N'
do whil .t.
  if repeat='N'
    clea
    macode=spac(8)
    @ 3,8 to 21,71 doub
    @ 2,19 to 4,60 doub
    @ 3,20 say ' NIGER STATE MINISTRY OF FINANCE, MINNA '
    @ 5,25 to 7,53 doub
    @ 6,26 say ' ACCOUNT CODE - ENTRY FORM '
    @ 9,10 say 'ACCOUNT CODE (or Press "'+chr(17)+chr(196)+chr(217)+'"
KEY to EXIT):'
    sele 1
    @ 9,53 get macode pict '999/9999'
    read
    if macode=spac(8)
      exit
    endi
    n=len(ltri(rtri(macode)))
    if n<7
      if n< >4
        @ 18,9 to 20,70
        @ 19,10 say 'ACCOUNT CODE must have 3, 6 or 7 digits - Press any key ...'
        set cons off
        wait
        set cons on
        loop
      endi
    endi
    seek macode
    if foun()
      @ 18,17 to 20,62
      @ 19,19 say 'DUPLICATE ACCOUNT CODE - Press any key ...'
      set cons off
      wait
      set cons on
```

```
  loop
endi
@ 9,23 clea to 9,68
@ 9,24 get macode
*  clea gets
stor 'N' to succ1,succ2,succ3
stor spac(20) to mdesc1,mdesc2,mdesc3
macode=ltri(rtri(macode))
n=len(macode)
mhead=left(macode,3)
*  msubhead=right(macode,2)
if val(mhead)>=401 .and. val(mhead)<=411
  mtype='RR'
  full='RECURRENT REVENUE'
endi
if val(mhead)>=412 .and. val(mhead)<=439
  mtype='RE'
  full='RECURRENT EXPENDITURE'
endi
if val(mhead)>=440 .and. val(mhead)<=449
  mtype='CR'
  full='CAPITAL REVENUE'
endi
if val(mhead)>=450
  mtype='CE'
  full='CAPITAL EXPENDITURE'
endi
@ 9,37 say 'CATEGORY:' get full
clea gets
if mtype='CR'
  msubhead='  '
else
  msubhead=right(macode,2)
endi
if mtype='RE'
  if n=7
    msection='0'+subs(macode,5,1)
  else
    msection=subs(macode,5,2)
  endi
else
```

```
    msection=' '
  endi
  sele 2
  seek mhead
  if foun()
    mdesc1=desc
    succ1='Y'
  endi
  if mtype<>'CR'
    sele 3
    seek msubhead
    if foun()
      set filt to code=msubhead
      if mtype='RE'
        loca for type=mtype
      else
        loca for head=mhead
      endi
      if foun()
        mdesc2=desc
        succ2='Y'
      endi
    endi
  endi
  if mtype='RE'
    sele 4
    seek msection
    if foun()
      set filt to code=msection
      loca for hcode=mhead
      if foun()
        mdesc3=desc
        succ3='Y'
      endi
    endi
  endi
else
  @ 18,10 clea to 20,67
  repeat='N'
endi
@ 11,10 say 'HEAD CODE:' get mhead
```

```
@ 11,35 say 'DESCRIPTION:' get mdesc1
if mtype< >'CR'
  @ 13,10 say 'SUBHEAD CODE:' get msubhead
  @ 13,35 say 'DESCRIPTION:' get mdesc2
  if mtype='RE'
    @ 15,10 say 'SECTION CODE:' get msection
    @ 15,35 say 'DESCRIPTION:' get mdesc3
  endi
endi
clea gets
if succ1='N'
  @ 11,48 get mdesc1 pict '@!'
  read
endi
if mtype< >'CR'
  if succ2='N'
    @ 13,48 get mdesc2 pict '@!'
    read
  endi
  if mtype='RE'
    if succ3='N'
      @ 15,48 get mdesc3 pict '@!'
      read
    endi
  endi
endi
@ 18,12 to 20,67
@ 19,14 say '(S)AVE   (R)EPEAT   (A)BANDON   -   Pick choice ...'
resp=0
do whil .t.
  resp=inkey()
  if uppe(chr(resp)) $ 'SRA'
    exit
  endi
endd
if uppe(chr(resp)) $ 'R'
  repeat='Y'
  loop
endi
if uppe(chr(resp)) $ 'S'
  sele 1
```

```
    appe blan
    repl acode with macode,estimated with 0,actual with 0
    repl bbf with 0,head with mhead,subhead with msubhead
    repl section with msection,type with mtype
    if succ1='N'
      sele 2
      appe blan
      repl code with mhead,desc with mdesc1,type with mtype
    endi
    if mtype<>'CR'
      if succ2='N'
        sele 3
        appe blan
        repl code with msubhead,desc with mdesc2,type with mtype
        if mtype='RR' .or. mtype='CE'
          repl head with mhead
        endi
      endi
      if mtype='RE'
        if succ3='N'
          sele 4
          appe blan
          repl code with msection,hcode with mhead,desc with mdesc3
        endi
      endi
    endi
  endi
endd
clos all
clea
retu
```

ACCT512.PRG

```
do whil .t.
  clea
  @ 3,15 to 22,64 doub
  @ 3,31 say ' NGSFACCT PACKAGE '
  @ 2,30 to 4,49 doub
  @ 6,28 say ' TYPE OF ACCOUNT CODES '
```

```
  @ 5,27 to 7,51 doub
  @ 9,16 to 9,63
  @ 11,27 to 16,51
  @ 12,29 prom 'HEAD DESCRIPTION'
  @ 13,29 prom 'SUBHEAD DESCRIPTION'
  @ 14,29 prom 'SECTION DESCRIPTION'
  @ 15,29 prom 'E X I T'
  @ 18,16 to 18,63
  @ 20,21 say 'SPECIFY THE TYPE ( Use '+chr(25)+' or '+chr(24)+' &
'+chr(17)+chr(196)+chr(217)+' )'
  menu to ch4
  do case
    case ch4==0
      loop
    case ch4==1
      sele 1
        use account inde account
      set filt to type='RR'
      if type<>'RR'
        skip
      endi
    case ch4==2
      sele 1
        use account inde account
      set filt to type='RE'
      if type<>'RE'
        skip
      endi
    case ch4==3
      sele 1
        use account inde account
      set filt to type='CR'
      if type<>'CR'
        skip
      endi
    case ch4==4
      sele 1
        use account inde account
      set filt to type='CE'
      if type<>'CE'
        skip
```

```
      endi
    case ch4==5
      sele 1
        use account inde account
    othe
      exit
  endc
endd
clea
clos all
retu
```

ACCT513.PRG

```
do whil .t.
  clea
  @ 3,15 to 22,64 doub
  @ 3,31 say ' NGSFACCT PACKAGE '
  @ 2,30 to 4,49 doub
  @ 6,26 say ' CATEGORY OF ACCOUNT CODES '
  @ 5,25 to 7,53 doub
  @ 9,16 to 9,63
  @ 10,27 to 17,51
  @ 11,29 prom 'RECURRENT REVENUE'
  @ 12,29 prom 'RECURRENT EXPENDITURE'
  @ 13,29 prom 'CAPITAL REVENUE'
  @ 14,29 prom 'CAPITAL EXPENDITURE'
  @ 15,29 prom 'ALL ACCOUNT CODES'
  @ 16,29 prom 'E X I T'
  @ 18,16 to 18,63
  @ 20,21 say 'SPECIFY CATEGORY ( Use '+chr(25)+' or '+chr(24)+' &
'+chr(17)+chr(196)+chr(217)+' )'
  menu to ch4
  do case
    case ch4==0
      loop
    case ch4==1
      sele 1
        use account inde account
      set filt to type='RR'
```

```
      if type< >'RR'
        skip
      endi
    case ch4==2
      sele 1
        use account inde account
      set filt to type='RE'
      if type< >'RE'
        skip
      endi
    case ch4==3
      sele 1
        use account inde account
      set filt to type='CR'
      if type< >'CR'
        skip
      endi
    case ch4==4
      sele 1
        use account inde account
      set filt to type='CE'
      if type< >'CE'
        skip
      endi
    case ch4==5
      sele 1
        use account inde account
    othe
      exit
  endc
*  sele 1
*    use account inde account
  sele 2
    use head inde head
  sele 3
    use subhead inde subhead
  sele 4
    use section inde section
  clea
  @ 0,0 to 24,79 doub
  @ 1,18 say 'LIST AND DETAILS OF AVAILABLE ACCOUNT CODES'
```

```
@ 2,18 to 2,60 doub
@ 3,1 to 3,78
@ 4,1 say 'ACCT CODE'
@ 4,14 say 'MINISTRY/DEPT'
@ 4,38 say 'SUBHEAD NAME'
@ 4,60 say 'SECTION NAME'
@ 5,1 to 5,78
@ 22,1 to 22,78
@ 4,11 to 21,11
@ 4,34 to 21,34
@ 4,57 to 21,57
ch = 0
r = 5
sele 1
do whil .not. eof()
  r = r + 1
  macode = acode
  mhead = head
  msubhead = subhead
  msection = section
  mtype=type
  stor spac(20) to mdesc1,mdesc2,mdesc3
  sele 2
  seek mhead
  mdesc1 = desc
  if mtype< >'CR'
    sele 3
    seek msubhead
    set filt to code=msubhead
    if mtype='RE'
      loca for type=mtype
    else
      loca for head=mhead
    endi
    mdesc2 = desc
  endi
  if mtype='RE'
    sele 4
    seek msection
    set filt to code=msection
    loca for hcode=mhead
```

```
      mdesc3 = desc
    endi
    if ch4=5
      @ r,1 say mtype+macode
    else
      @ r,3 say macode
    endi
    @ r,13 say mdesc1
    @ r,36 say mdesc2
    @ r,59 say mdesc3
    sele 1
    skip
    if .not. eof()
      if r=21
        r = 5
        @ 23,19 say 'VIEWING ACCOUNT CODES - Press any key ...'
        set cons off
        wait
        set cons on
        @ 6,1 clea to 21,10
        @ 6,12 clea to 21,33
        @ 6,35 clea to 21,56
        @ 6,58 clea to 21,78
        @ 23,15 clea to 23,64
      endi
    else
      @ 23,17 say 'IT IS END OF FILE - Press "C" to continue ...'
      resp = 0
      do whil resp=0
        resp=inkey()
        if uppe(chr(resp))$'C'
          exit
        endi
        resp = 0
      endd
    endi
*     if uppe(chr(resp))$'C'
*      exit
*   endi
   endd
endd
```

```
clos all
clea
retu
```