AUDITING IN A COMPUTER ENVIRONMENT

(A case study of the Federal University of Technology, Minna)

By

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March, 1998

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A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS AND COMPUTER, SCHOOL OF SCIENCE AND SCIENCE EDUCATIOD IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

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CERTIFICATION

I certify that this research project was carried out by OLUWASOMI ILALOKHOIN (Mrs) (nee Emmanuel Iruoje), the Department of Mathematics/Computer Science of the Federal University of Technology, Minna.

_____ _____

Prince R. Badamosi
Supervisor Date

_____ _____

Dr. K.R. Adeboye
Head of Department Date

_____ _____

External Examiner Date

MARCH, 1998

DEDICATION

I dedicate this Project to my uncle and his wife Mr. & Mrs. Samuel Aigbokhai, whom Almighty God used to shapen my destiny.

ACKNOWLEDGEMENT

My unreserved gratitude goes to the Almighty God who saw me through this course.

I wish to extend my appreciation to my Head of Department Dr. K.R. Adeboye for his encouragement and unrelenting assistance throughout the course.

To my supervisor Prince R. Badamosi, I would like to say thank you, a million times, for being so patient with me and taking pains to read and correct my manuscripts despite his heavy academic schedule.

My appreciation also goes to my lecturers and other members of the department.

I also extend my gratitude to the ex-Sole Administrator, Prof. I.H. Umar for granting me permission to undergo this course.

I also appreciate the cooperation shown by my husband Mr. Felix Ilalokhoin throughout the program.

To my children, Patience, Victor and Godwin may Almighty God continue to bless you all, for walking with me all the way.

ABSTRACT

The books of accounts of almost all large and medium sized companies are now stored and processed by a digital computer. It therefore means that auditors will encounter computer processed accounting transactions in most organisations these days.

The reduced costs of data processing equipment, availability of computer service bureaux and the development of expensive microcomputer have made automated processing available to even the smallest organisation.

The routine nature of auditing and the speed and accuracy provided by computers had led to a special field of auditing technology known as "computer auditing"

If the auditor is to justify his claims that the books of accounts have been properly kept it is difficult to see how he can do this without paying attention to the controls built into the computer system.

This project will examine the type of controls used to prevent error creeping into the data presented by a computer system. This project seeks to develop an automated Internal Auditing system for the Federal University of Technology Minna with special reference to the Internal control requirement of a computerised payroll accounting system.

CHAPTER ONE

AUDITING (An Overview)

The official terminology of the chartered Institute of Management Accountants define audit, External Audit and Internal Audit as follows:

Audit: A systematic examination of the activities and status of an entity based primarily on investigation and analysis of its systems, controls and records.

External Audit: There are two main type of Auditing - A periodic examination of books of account and records of an entity carried out by an independent third party (the auditor), to ensure that they have been properly maintained, are accurate and comply with established concepts, principles, accounting standards, legal requirements and give a time and fair view of the financial state of the entity.

Internal Audit: This refers to an independent appraisal function established within an organization to evaluate its activities as a source to the organisation. From the definitions above, we find that systems controls and records of an organisation is the subject of an audit, by a third party in the case of external audit and an independent mentor of the organisation in the case of internal auditing.

Internal auditing is the focus of this study. This began as a one person clerical function that consisted primarily of performing independent certification of bills before payment. In the past also, auditing in depth was in practice. This involved tracing a transaction through its various stages from origin to conclusion, examining at each stage and observing the incidence of internal check and delegated authority.

Modern Internal auditing objectively examines, evaluates and reports on the adequacy of internal controls as a contribution to the proper, economic, efficient and effective use of resources. It is a control that sees that other controls function properly.

An organisation's internal control system consist of the policies and procedures established to provide reasonable assurance that specific organisation objectives will be achieved. Internal control system include a wide variety of procedures and policies. The procedures and policies that are most relevant to an audit pertain to the certify's ability to record, process, summarise and report financial data in a manner that is consistent with the assertions contained in the financial statement. An organisation's objectives may involve both financial and non-financial goals.

Objective of Study: (Internal Auditing and systems efficiency)

The objective of internal auditing is to assist members of the organisation in the effective discharge of their obligation. To this end internal auditing furnishes them with analysis, appraisals, recommendations, counsel and information concerning

the activities reviewed.

The relevance of internal audit in the efficiency of the system is borne out of the fact that their duties include:-

a. audit of financial reports and accounting control system
b. reviews of control systems that ensure compliance with company policies, plans and procedures and with laws and regulations
c. appraisals of the economy and efficiency of operations
d. reviews of the effectiveness in achieving programs results in comparison to pre-established objectives and goals.

Scope and Limitations

The scope of this project is to design a computerised system that will accept audit procedures such as pre-payment investigations, post audit investigations and internal audit reporting. It is impossible for this project to cover audit of all accounting systems in the University and it is also not the usual practice to design a system that can cover all areas. This project will only use a single unit as demonstration of this computerisation process. So this system is expected to eliminate the tedious, notorious and sometimes inaccurate manual audit of salary payment vouchers and pay sheets and ultimately reduce fraudulent acts in the system.

Some of the limitations of this project are time constraints, financial constraints and dearth of books and source materials on this topic which is relatively new.

Essential Elements of Internal Auditing

The essential elements are:

i. Independence:- The Internal auditor should have the independence which permits the performances of his duties objectively. The independence is achieved through the organisational status of internal audit and the objectivity of internal auditors. The internal auditor should be made to report to the appropriate head.

ii. Staffing and training:- The internal audit unit should be appropriately staffed in terms of numbers, grades and experience having regard to its responsibilities and objectives.

iii. Relationships:- The internal auditor should seek to foster constructive working relationships and mutual understanding with management, external auditors, review agencies and audit committee.

iv. Due Care:- The internal auditor should exercise due care in fulfilling its responsibilities.

v. Planning, Controlling and Recording:- The internal auditor should plan, record and control his work.

vi. System Controls:- The internal auditor should ascertain the organisation's system and system control as a basis for evaluation and reporting.

vii. Evidence:- The internal auditor should obtain sufficient, relevant and reliable evidence on which to base reasonable conclusions and recommendations.

viii Reporting:- The internal auditor would ensure that findings, conclusions and recommendations arising from each

internal audit assignment are communicated promptly.

Methodology

The methodology of internal auditing as set out in a detailed audit program (list of procedures) comprising :

- pre-payment audit verification
- post-audit investigation
- Internal audit reporting to the Chief Executive
- Internal audit questionnaire which is a series of questionnaires designed to assist the internal auditor in assessing the internal control system existing in the different sections of the organisations.

Auditors also use seven different procedures to gather evidence in the course of their duties.

i. Recalculation by the auditor
ii. Observation and examination by the auditor
iii. Examination of documents (vouching and tracing).
iv. Verbal inquiry and written representations
v. Confirm by letter
vi. Scanning
vii. Analytic review

i. Recalculation involves the recalculation of calculations previously performed by the client. They are either right or wrong.

ii. Observation and examination involves physical inspection of tangible assets to provide compelling evidence of existence, condition and valuation.

iii. Confirmation involves confirmation by direct correspondence with independent parties.

iv. Verbal enquiry is a procedure that generally involves the collection of oral evidence from independent parties and client.

v. Examination and Documents. A great deal of documentary evidence is both internal and external. This involves examination of authoritative parties and by the client (or management).

vi. Scanning - This is the way auditors exercise their general alertness to unusual items and events in documentation. It is an "eyes open" approach of looking for anything unusual.

vii. Analytic review procedures - are attention director in audit planning stage. They also produce direct evidence of financial statement errors and irregularities.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Problems with the Present System

The Internal Audit unit was established in 1990. The unit performs its duties as an arm of management and as an aid to management efficiency.

Payroll accounts which is the focus of this project made a large share of total costs (50% and more) of the university's expenditure. Federal and State laws require detailed payroll records for each employee and regular reports to be filled with government agencies along with payments of amount withheld from employees and payroll taxes on the employer.

Strong internal controls over payroll are necessary because of the large expenditure involved, the necessity for prompt and accurate payment of employees and the required filling of detailed reports to the government.

The main problem found emanating from the present system is that vouchers are not audited on time and sometimes lack of accurate information. This problem lead to consequent delay in the compilation and preparation of salaries to the various categories of workers (permanent, temporary, contract and casual) in the university at the end of every month.

It was also discovered that with the old system, deductions made from salaries are not promptly remitted to the necessary tax authorities, unclaimed wages from staff who have withdrawn from the university but whose salaries are erroneously paid are not easily detected and paid back into the university coffer and at

the appropriate time.

With the present system there is no proper documentation, coding, description and analysis of salaries and wages. Terminal benefits are sometimes wrongly calculated and paid.

2.2 Audit Procedures

Auditing generally takes two forms, commonly referred to as pre-audit and post-audit.

Pre-audit involves the examination of transactions before payment. Pre-payment audit is encumbrance/payment audit and it tends to be clerical and continuous in nature.

Post-audit on the other hand represents an after the fact examinations. As mentioned earlier in this project, the procedures used generally in auditing for gathering evidence are recalculation, observations and examination, confirmation by letter, verbal enquiry and written examination, scanning and analytic review.

As it is impossible for this project to cover audit of all accounting systems and all departments in the university and also impossible to design one computerised system that can cover all areas this project focuses on the procedures of audit of computerised payroll accounting system.

The present system involves manually scrutinizing documents obtained from the Registry and Bursary departments. These documents include appointment letters, assumption of duty notices, promotions/salary adjustment letters, resignation/ dismissal/retirement letters and staff clearance forms. These documents are usually sent to the Audit unit in respect of every

staff employed.

Input from Bursary include payroll salary vouchers, personal paysheets, departmental payroll summary sheets and bank schedules. These documents are manually vouchered against personal paysheets of every staff. Where there are discrepancies, queries are issued and where there are no discrepancies or the queries are cleared the documents are signed and stamped and sent back to the originating office.

The bank schedules from Bursary are also sent to the Audit unit for final checking before going to the Chief Executive for his approval. All these activities are performed manually. These are repetitive processes which could lead to boredom. The manual method of auditing is also slow since it involves checking individual personal sheets.

2.3 Organisational Structure of the University

The Federal University of Technology, Minna came into being on 1st February 1983, with the pronouncement that proclaimed its establishment with six others located in different zones of the country.

The aim was to concretise the desirable quest for technology hence the specialised universities of technology. The Federal University of Technology, Minna is divided into academic and non-academic departments. The non-academic department is eight in number viz: the Vice-Chancellor's office, University Health Services department , Registry, Computer Centre, University Library, Audio Visual Centre, Works and Maintenance and the Bursary. These departments and centres are headed by directors,

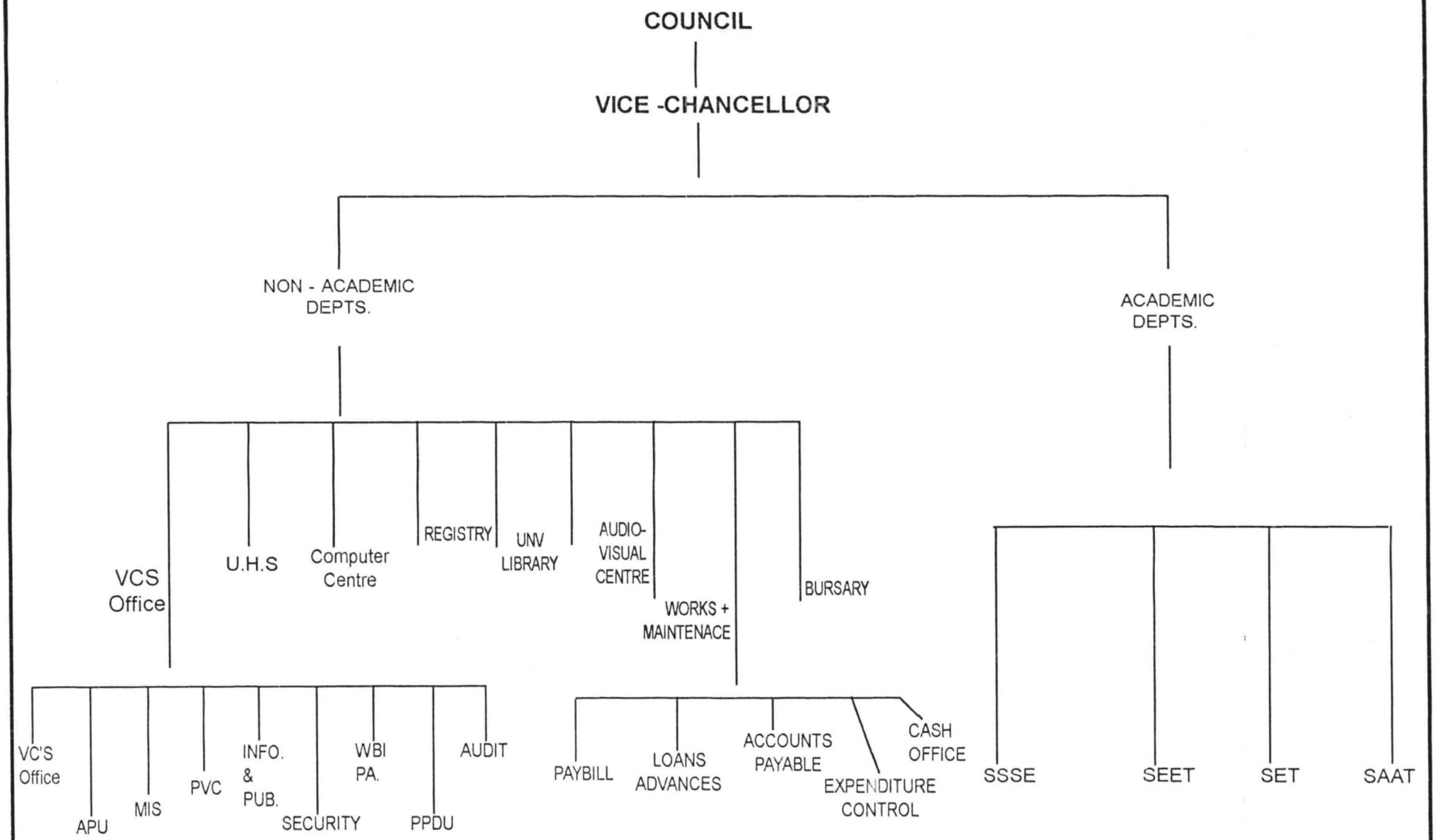
who are answerable to the Vice-Chancellor. Some of these departments are further divided into units which are headed by directors and chief executive offices (see diagram).

The academic department is divided into schools, viz: School of Science and Science Education, School of Engineering and Engineering Technology, School of Environmental Technology, School of Agricultural and Agricultural Technology and the Post-Graduate School. The schools are headed by Deans who are answerable to the Vice-Chancellor. The schools are further divided into departments and there are twenty five of them including a University Farm (see diagram below).

The departments are headed by senior academic staff known as the head of department. The Vice-Chancellor is the chief executive of the university and he is answerable to the University Governing Body called the Council.

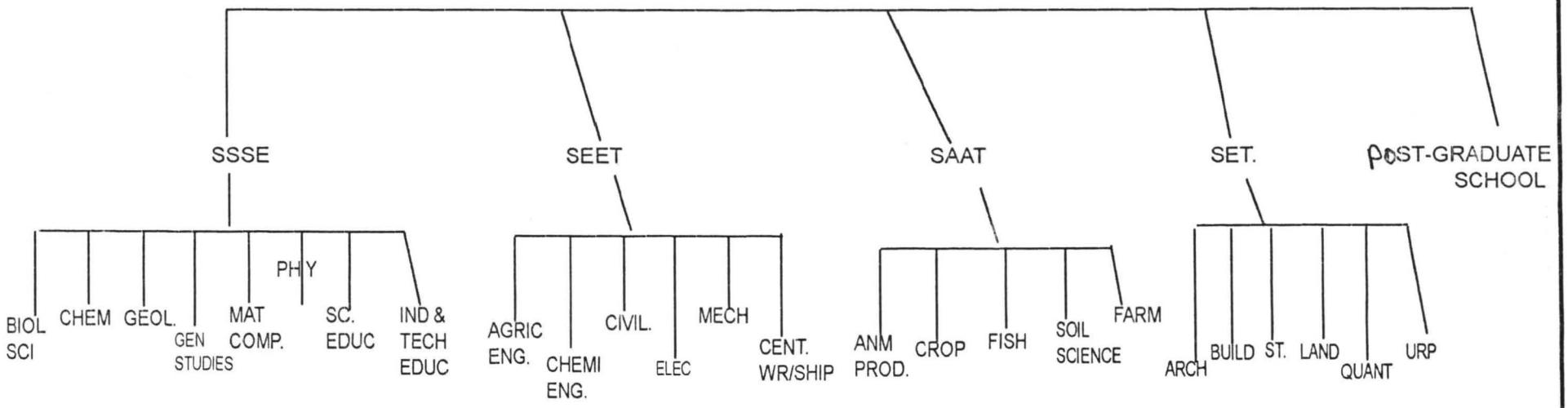
The Audit unit is under the Vice-Chancellor office. It is a management support unit. It is presently headed by a Principal Audit Officer who is answerable to the Vice-Chancellor.

ORGANISATION CHART



UHS => University Health Serivice
APM => Academic Planning Unit
MIS => Management Information Systems Unit.

ORGANISATION CHART CONTD.



CHAPTER THREE

3.0 SYSTEM ANALYSIS AND DESIGN

3.1 Introduction

The Computerisation of any organization needs to emphasise on the data, forms, information flow, procedure etc. This approach is necessary because computers are subordinate parts of an information system that usually improves organisational results. Also before any changes can be carried out over any organizational set up the motive for the changes must be identified and fully examined critically so as to justify the imperative for change.

The system analyst tries to examine what the current system is, what remedy to apply as to correct the situation. Also analysing the current procedure and designing the most efficient and economical systems or procedures that will better accomplish given tasks within an organisation.

3.2 Problem Identification

The system analyst having examined the old system discovered the following problems:

a. Constant delay in checking payroll printouts and vouchers,
b. difficulty and delay in detecting omissions of staff names,
c. non detection of duplicated names due to large volume,
d. difficulty in detecting "ghost workers",
e. mishandling of input documents,
f. Generation of high volume of paper work and inaccuracy in calculations, dishonesty and human errors also posed as

problems in the manual system.

3.3 Feasibility Study

Based on the feasibility study that was carried out by the analyst, the strengths and weaknesses of the existing system were discovered.

It was concluded that in-accurate and slow checking of salary printouts and vouchers, for payment to various categories of staff can be solved by computerising the system.

It was also discovered that the existing system was full of errors and inefficient and the desire to increase productivity in the university and reduce cost by eliminating these deficiencies constitute the necessity for more effective and useful structure of information for better organisation and decision making.

3.4 Cost and Benefit Analysis

The proposed system will need hardware, software and human ware to accomplish its task. The projected cost of developing the system are as follows:

1.	Training of 2 staff for 12 weeks at N6,000.00 per staff per 6 weeks	24,000.00
2.	Training of 2 staff for 6 weeks at N6,000.00 per staff	12,000.00
3.	Training of 2 staff for 12 weeks at N6,000.00 per staff per 6 weeks at the implementation stage	12,000.00
	Total	N60,000.00

Purchase of Equipment

2 IBM PCs 2122 150 mhz	270,000.00
2 Display terminal	60,000.00
2 Printers Epson 2170	180,000.00
Computer furniture	30,000.00
Installation	15,000,00
UPS	15,000.00
Total	N570,000.00

Operation Cost

Stationeries Items	
Ribbon, Paper, Diskette	20,000.00
Equipment Maintenance	15,000,00
Contingency	10,000.00
Total	N 45,000.00
Grand Total =>	N675,000.00

3.5 Benefits of the System

The benefits of the ew system is enormous and can be felt from the onset.

1. It will save time and cost
2. It will eliminate duplication of names and frequent omission of staff names.
3. It will reduce generation of high volume of paper work
4. Since computers work at a phenomenal speed coupled records there will be elimination of delay in payroll audit checking and in payment of salaries.

3.6 Testing the Project Feasibility

Operational Feasibility

This project is operationally feasible. This is based on facts discovered during investigation stage; which revealed the desire of those concerned with operations as well as the users of the sytem to have strongly supported the proposal of a computerised system. This will reduce error and inefficiency and increase productivity in the University.

Technical Feasibility

This project is technically feasible because university is willing to purchase the necessary equipment and finance the project. There are also some existing hardware/software and human ware on ground to enable the system effectively take off.

Economic Feasibility

The project is economically feasible based on the findings, the management has shown their desire to automate the system, with the view to correct errors of the past and the desire to move forward in the area of information processing.

It will be less expensive to carry out this project since the university has some hardware, software and competent human ware to start with.

3.7 Input and Output Specifications

Input

In terms of accuracy the data that are to be inputed into the system must be validated to ensure that decisions are made with the information obtained from accurate data, which implies that the information should reflect the current situation. Also

with the aid of computer, a large volume of data which involves sorting, updating information and merging of data could be done without stress. This is because of the ability of the computer to perform repetitive tasks which makes things easier.

Input requirements for computerized system are usually payroll vouchers, bank schedules, department letters, assumption of duty and notices, promotion/salary adjustment letters, resignation/retirement/dismissal letters and staff clearance forms.

Output

These are vouched and stamped payroll vouchers, payroll sheets vounched and stamped, analysed bank schedules, periodic reports produced on quarterly basis and also yearly and submitted to the chief executive (the Vice-Chancellor).

CHAPTER FOUR

4.0 SOFTWARE/PROGRAM DEVELOPMENT, IMPLEMENTATION

4.1 Introduction

Programming is the art of writing or designing a program towards solving a specific problem.

A program is defined as a set of instructions describing the logical steps the computer will follow to solve a particular problem. The art of program writing involves a program definition - that is knowing the nature and complexity of the problem.

Mathematical problems are usually easier to define since formulae are used and are well defined. A commecrcial data processing may involve so many sub-tasks, procedures and routines that must be well defined and formulated using mathematical statements and operators. The solution can thereafter be defined.

The second stage involves analysing the various procedures or routines defined to find a method of solution. The analysis involved in a commercial data processing may involve manipulating the records in a file, establishing a relationship between the various data elements and then the description of the medium of storage.

4.2 Choice of Language

The analyst considered the use of dbase + program in this project because of its versatility. It provides a variety of functions for basic information management and also adoptable to complex business applications like accounting systems which is a customised application for business and government organisations.

4.3 Features of dBse IV Language

dBase IV plus is the leading data base program. It has the facilities that enable you to create simple data applications such as keeping names and addresses, inventory records and also create complex applications such as general ledger, account receivable, account payable, paryroll etc.

dBase IV plus offers a programming language that enables you construct your own database applications. Large number of built-in functions are provided including mathematical functions, string manipulation functions, data type conversion functions, time and date functions. It also includes commands to perform conditional branching, looping, calculations, sort records, format input screens, output reports.

Dbase IV plus also has the facility that provides local network operating mode permitting multiple users to access the some database on a local area network.

Dbase IV plus has the facility that enables you to create five different data field. It provides Dot command that enables you to use the menu directly without using the menu facilities provided by the assistant.

Dbase also provides facilities to generate reports and mailing labels from database files.

Hardware Requirements

For the purpose of this project the hardware required is the IBM 8100 minicomputer because of its multi-tasking use such as its ability to perform many tasks simultaneously, makes it more preferable to the organisation.

It has greater memory storage capacity, greater processing speed and more numerous control function and faster input/output devices.

It is also more versatile and more flexible than the micro-computer. The IBM 8100 microcomputer has two disk drives and fixed disks of 5.25 and 3.5 winchester disk.

It provides a long term and high speed storage. It has 200 megabyte. The hard disk is more durable in the sense that the read/write heads of the drive do not touch the surface of the disk before information is read from or written onto the disk.

Software Requirements

For this project, the analyst intends to use DBase IV as software.

DBase IV is the leading database program that provides a full relational database environment for users. DBase IV has the facilities to enable the user to design databases, manipulate and edit records and files, generate reports, perform database query, design labels and browse databases. Data fields can be specified automatically as they are entered into fields. Up to 255 fields can be specified per record and a database can be related to more than two other databases.

Programmes and procedures can be compiled and saved as object codes for faster execution. Pop-up nouns and windows can be designed. DBase IV plus has a large number of memory variables, user definable functions, up to 99 files can be opened at a time. There is improved indexing, a large command line buffer, command line editor, improved printer handling

capabilities and faster execution. A query-by-example function is also provided.

Its full relational database capabilities uses SQL (Structured Query Language) that is compatible with IBM machines.

Database queries and updates can be performed using the SQL command language.

Software Development and Testing

This involves the actual execution of the program and it enables you to test the effectiveness of the input and output data items used in the system. In order to ensure that the system functions effectively the following are considered - efficiency, maintainability, flexibility and security. There must be proper control so as to ensure that data are entered correctly and validated.

Also, all system accessories recommended by the analyst involves regular servicing of the hardware as well as replacing the parts that are deficient.

In the area of security, the operator is expected to enter the correct password as to enable access to the records.

Also only officers assigned to audit payroll are allowed access to the database. The system is also designed to be user-friendly and menu drivers. This allows the operator a choice of different transactions and implementations.

Change-Over Procedure

This involves changing from the old system to the newly developed system. It entails four methods namely, Pilot method,

parallel method and phased conversion method.

Pilot method: This method involves some parts of the system being installed and later the rest of the system can be installed based on the arrangement and agreement.

Direct method: This method involves the existing method being dismantled completely for the new system to replace the old one.

Parallel method: This method involves a situation whereby the old system and the new system are run concurrently using the same input data. The output from the old system continues to be operational until the old system is discontinued and the new system takes its place fully.

Phased Conversion method: This method involves integrating components of the old system into the new system, by so doing, the old system is gradually phased out. Also this is the best way to design data in hierarchical structure of related processing activities grouped together.

It has cost minimisation advantage as the two systems are not operated together simultaneously, conversion in this approach is gradual.

Considering the different options of change over procedures, the analyst opts for the phase conversion method, for this project considering its cost minimisation on external operators.

Documentation

This has to do with providing adequate information about a system in terms of its hardware and software components. Also the control objectives and techniques and all transactions and significant events must be clearly documented in writing or back up hard copy.

The specification for this application is as follow:

Analyst: Mrs. Oluwasomi Ilalokhoin

Supervisor: Prince R. Badamosi

Program Title: Computer Audit of Paysheets

Hardware: 1BM and IBM Compatibles

Environment: Both source and object computer

Date written: February 1st, 1998

Security: Password (option)

Remark: The program is written to reduce the monotony and tedious manual audit of paysheets at the Federal University of Technology, Minna.

Starting the System

This application program comes in a floppy diskette and it needs to be loaded into the computer memory before any operation can be carried out.

First insert MS-DOS diskette in drive (A) and close it. But if you are using the hard disk drive with MS-DOS already installed, just go ahead to switch on power from the main to boost the system.

At this stage a message appears on the screen requesting you to type in the current data and time i.e. in month, days and year (mm-dd-yy). After that you press the enter key. This will take you to the DOS prompt appearing with blinking cursor. Then insert your formatted working diskette in drive A or B. But in a situation whereby you are using the hard disk, at the root directory, type CD/dBase, then (enter) key. After entering dBase IV plus, you are automatically placed in the Assist mode. The

ASSIST mode is a series of menu designed to allow the manipulation of program commands. When using the application program diskette "Audit of Paysheets" is typed, press return key. The user will be taken to the package and a menu now appears asking whether to go through the document or stop it. When/if the correct password is typed the main menu of the package will appear with options thus: Payroll program, select Leave grants, select promotions, select dismissals/ terminations/withdrawal of service, select tax deductions, select study fellowship or sabbatical, select maternity and leave of absence, select salary stoppage, select documentation letters introducing new staff and select recoverable advances such as housing, vehicle refurbishment and furniture.

But if the wrong password is typed, a message appears advising user to seek authority permission.

Security Measure

Computer system security comprises of the security of all the information and assets that constitute the system. Adequate measures should be taken regarding both the hardware and software. Password which is known only to the main operator should be used to guide the information stored and also the software. Only trained computer audit personnel should be allowed access to the hardware.

CHAPTER FIVE

5.0 RECOMMENDATIONS

1. It is recommended that the Federal University of Technology, Minna should without delay implement the phase conversion method. This will provide the management with accurate and reliable information.
2. The management as a matter of necessity should provide the audit unit with at least a computer complete with printer to enable easy and fast implementation of this project. Since the payroll accounting system is already computerised, it is unproductive for the Audit unit to continue to perform manual auditing.
3. The implementation will enhance efficiency in the audit of staff salaries.
4. The implementation of the new system will reduce high volume of paper work and inaccurate calculation of figures and this will hasten the payment of staff salaries and other reforms of payment to customers.
5. It is recommended that university should arrange for computer audit training for their audit staff over the use of the new system. As computer auditing is a fairly new areas of study the present staff needs adequate training in this regard.
6. It is also recommended that motivation should be given to deserving officers. Also officers not up to required standard should be trained for improvement. Merit and productivity should be the yardstick for promotion and other incentives.

5.2 Conclusion

In every large organisation because of the complexity of their operations, there is need for control of performance and accountability by authorities.

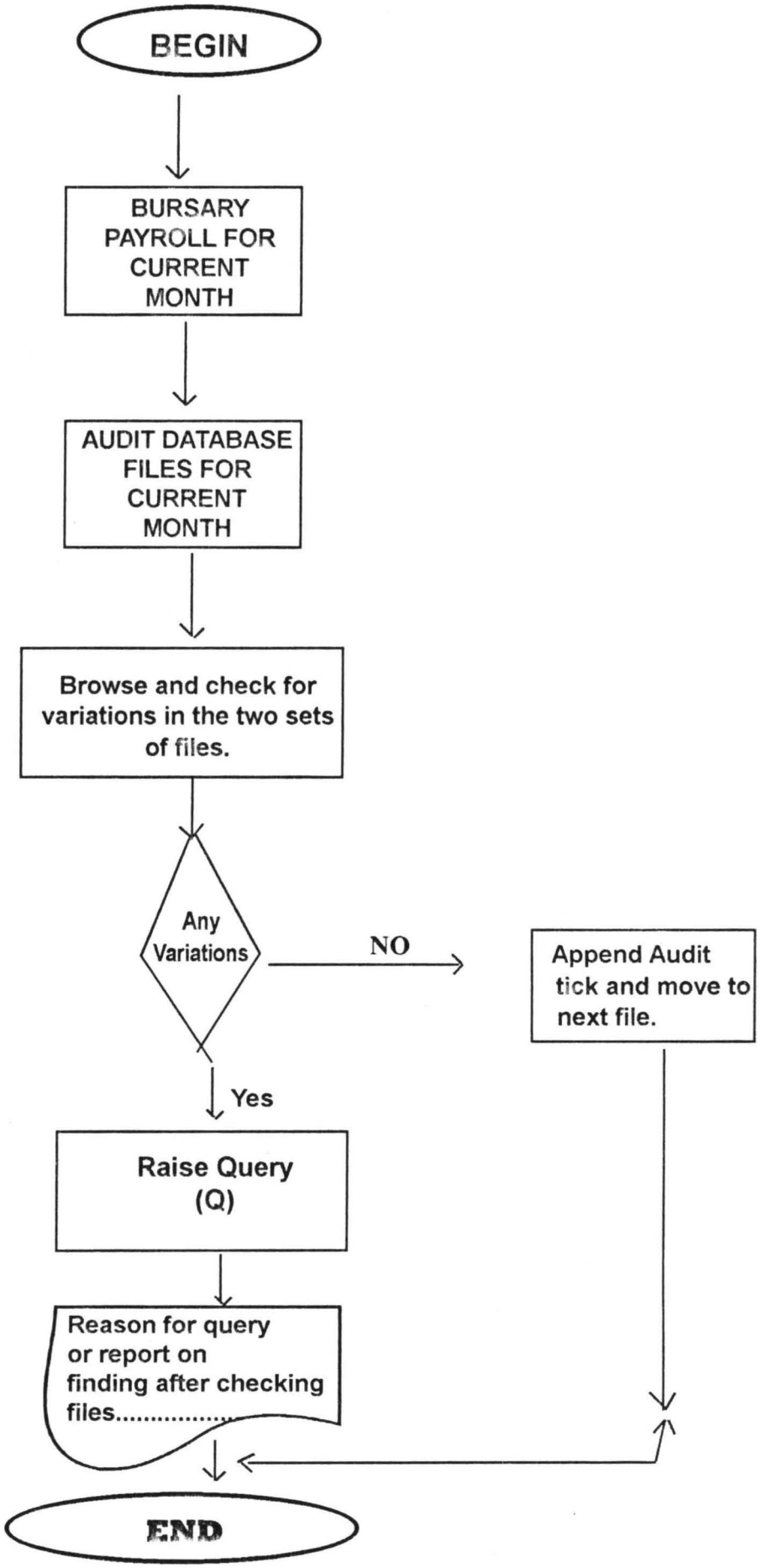
The main purpose of auditing is to ensure that the university achieves its set objectives at a minimum cost and in accordance with laid down rules and regulations of management, standard accounting practice and the laws of the Federal Republic of Nigeria.

Hence this project is centred on a more efficient way of auditing the system to ensure more accountability and timely information to management.

This project is well tested. The system is simple and efficient and is able to satisfy the need and purpose for which it has been designed.

It is therefore recommended for efficient auditing of the payroll system of the Federal University of Technology, Minna and other similar organisations.

FLOWCHART FOR MONHTLY AUDIT OF PAYROLL



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Manuals/Journals

Committee of Heads of Internal Audit Departments in Nigerian Universities.

Internal Audit Manual for Nigerian Universities.

APPENDIX

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SET DATE TO BRITISH
SET STATUS OFF
SET TALK OFF
SET SCOREBOARD OFF
SET COLOR TO ,,W
SET BORDER TO 178,178,178,178,178,178,178,178

DEFINE WINDOW BIGWIN FROM 0,0 TO 24,79
DEFINE WINDOW LOGO FROM 2,21 TO 4,55
DEFINE WINDOW QUERY FROM 12,5 TO 14,75 DOUBLE
DEFINE WINDOW PRINSET FROM 5,5 TO 22,70 PANEL
DEFINE WINDOW PENLOGO FROM 6,20 TO 9,58 PANEL
DEFINE WINDOW PENALTY FROM 11,4 TO 21,73 PANEL
DEFINE WINDOW CALC FROM 12,5 TO 15,75 PANEL

SET BORDER TO
ACTIVATE WINDOW BIGWIN
@ 4,20 TO 19,27
@ 4,27 TO 8,54
@ 5,51 TO 7,53
@ 4,55 TO 19,60
@ 9,30 SAY "INTERNAL AUDIT DEPARTMENT" COLOR RG+/B
@ 11,36 SAY " ENTER  " COLOR RG+/B
@ 13,39 SAY "THE"
@ 14,38 SAY "PASSWORD"
@ 15,30 SAY "` PASSWORD HERE!! '"
@ 19,26 TO 19,54
*IF PASS= "     "
*  @ 18,28 SAY "` PASSWORD GRANTED?? '" COLOR RG+/B
* ELSE
*  @ 18,28 SAY "` PASSWORD GRANTED?? '" COLOR RG+/B
* ENDIF
WAIT
DO CENTER

PROCEDURE CENTER
CLEAR
SET BORDER TO
ACTIVATE WINDOW LOGO
DO CONTROL

PROCEDURE CONTROL
SET BORDER TO 178,178,178,178,178,178,178,178
@ 0,0 SAY "   VALUE ADDED TAX DATABASE"
ACTIVATE SCREEN
DEFINE POPUP CONTROL FROM 6,23 TO 22,53
DEFINE BAR 2 OF CONTROL PROMPT "          MAIN MENU       " SKIP
DEFINE BAR 3 OF CONTROL PROMPT "       ~~~~~~~~~~~~~~~~" SKIP
DEFINE BAR 4 OF CONTROL PROMPT "      EMPLOYEE REGISTER "
DEFINE BAR 6 OF CONTROL PROMPT "      AUXILLIARY RECORDS"
DEFINE BAR 8 OF CONTROL PROMPT "       PAYROLL  SHEET"
```

```
DEFINE BAR 10 OF CONTROL PROMPT "        LIST\PRINT MODE "
DEFINE BAR 12 OF CONTROL PROMPT "          SEARCH MODE    "
DEFINE BAR 14 OF CONTROL PROMPT "          QUIT TO DOS."
ON SELECTION POPUP CONTROL BLANK DO ASSIGN
ACTIVATE POPUP CONTROL

PROCEDURE ASSIGN
DO CASE
 CASE BAR() = 4
  DO REG
 CASE BAR() = 6
  DO AUX
 CASE BAR() = 8
  DO PAYROLL
 CASE BAR() = 10
  DO PRINOPTN
 CASE BAR() = 12
  DO SEARCH
 CASE BAR() = 14
  DO FOOTAGE
ENDCASE
RETURN

PROCEDURE ENTRY2
 ENTRANS= "Y"
 @ 16,3 SAY "DO YOU WANT TO MAKE MORE ENTRIES[Y/N]" GET ENTRANS
PICTURE "N"
 READ
 IF UPPER(ENTRANS) = "Y"
  ACTIVATE SCREEN
  DO EMPREG
 ENDIF
ACTIVATE SCREEN
***************
 ACTIVATE WINDOW QUERY
 ENTRANS= "Y"
 @ 1,0 SAY "DO YOU WANT TO MAKE MORE ENTRIES[Y/N]" GET ENTRANS
PICTURE "N"
 READ
 DEACTIVATE WINDOW QUERY
 IF UPPER(ENTRANS) = "Y"
  ACTIVATE SCREEN
  DO VATRET
 ENDIF
ACTIVATE SCREEN
RETURN

PROCEDURE ENTRY3
DEACTIVATE WINDOW PENLOGO
DEACTIVATE WINDOW PENALTY
ACTIVATE WINDOW QUERY
REPLY = "N"
@ 0,10 SAY "WANT TO MAKE MORE ENTRIES [Y/N]?" GET REPLY PICTURE
"Y"
```

```
READ
 IF UPPER(REPLY) = "Y"
  DEACTIVATE WINDOW QUERY
  DO VATPEN
 ENDIF
SET ESCAPE ON
DEACTIVATE WINDOW QUERY
ACTIVATE WINDOW LOGO
@ 1,0 SAY "VALUE ADDED TAX DATABASE"
ACTIVATE SCREEN
RETURN

PROCEDURE SEARCH
SET BORDER TO PANEL
DEFINE POPUP SEARCH FROM 7,4 TO 22,19
 DEFINE BAR 2 OF SEARCH PROMPT "    SEARCH" SKIP
 DEFINE BAR 3 OF SEARCH PROMPT "    OPTIONS" SKIP
 DEFINE BAR 4 OF SEARCH PROMPT "    ~~~~~~~" SKIP
 DEFINE BAR 5 OF SEARCH PROMPT " REGISTRATION"
 DEFINE BAR 7 OF SEARCH PROMPT " TERMINATIONS"
 DEFINE BAR 9 OF SEARCH PROMPT "  PROMOTIONS"
  DEFINE BAR 11 OF SEARCH PROMPT "   PENSIONS"
 DEFINE BAR 13 OF SEARCH PROMPT "    LEAVE"
ON SELECTION POPUP SEARCH BLANK DO SRCHASSIGN
ACTIVATE POPUP SEARCH
RETURN

PROCEDURE SRCHASSIGN
SET ESCAPE ON
ACTIVATE SCREEN
@ 6,23 CLEAR TO 20,78
FILENO = SPACE(8)
ACTIVATE WINDOW QUERY
DO CASE
 CASE BAR() = 9
  USE PROMDAT
  DO SRCHPROM
 CASE BAR() = 13
  DO SRCHLV
 CASE BAR() = 5
  USE REGDAT
  DO SRCHREG
 CASE BAR() = 7
  USE SACKDAT
  DO SRCHTERM
 CASE BAR() = 11
  USE PENDAT
  DO SRCHPEN
ENDCASE
*DO HYDRAIV
RETURN

PROCEDURE AUX
SET BORDER TO
```

```
DEFINE POPUP AUX FROM 8,57 TO 20,76
 DEFINE BAR 2 OF AUX PROMPT "     OPTIONS" SKIP
 DEFINE BAR 3 OF AUX PROMPT "     ~~~~~~~" SKIP
 DEFINE BAR 4 OF AUX PROMPT "    PROMOTIONS"
 DEFINE BAR 6 OF AUX PROMPT "   TERMINATIONS"
 DEFINE BAR 8 OF AUX PROMPT "     PENSIONS"
 DEFINE BAR 10 OF AUX PROMPT "       LEAVE"
ON SELECTION POPUP AUX  DO AUXASSIGN
ON SELECTION POPUP AUX BLANK DO AUXASSIGN
ACTIVATE POPUP AUX
RETURN

PROCEDURE AUXASSIGN
SET ESCAPE ON
ACTIVATE SCREEN
@ 6,23 CLEAR TO 20,78
*DO HYDRAIV
DO CASE
 CASE BAR() = 4
  DO PROM
 CASE BAR() = 6
  DO TERM
 CASE BAR() = 8
  DO PEN
 CASE BAR() = 10
  DO LV
ENDCASE
RETURN

PROCEDURE PRINOPTN
SET BORDER TO 178,178,178,178,178,178,178,178
@ 6,57 CLEAR TO 21,78
DEFINE POPUP PRIN FROM 6,57 TO 21,78
 DEFINE BAR 2 OF PRIN PROMPT  " PRINT OPTION MENU" SKIP
 DEFINE BAR 3 OF PRIN PROMPT  " ~~~~~~~~~~~~~~~~~~~" SKIP
 DEFINE BAR 4 OF PRIN PROMPT  " PROMOTION RECORDS       "
 DEFINE BAR 6 OF PRIN PROMPT  " TERMINATION RECORDS     "
 DEFINE BAR 8 OF PRIN PROMPT  " PENSION RECORDS         "
 DEFINE BAR 10 OF PRIN PROMPT " LEAVE RECORDS           "
 DEFINE BAR 12 OF PRIN PROMPT "REGISTRATION RECORDS  "
ON SELECTION POPUP PRIN BLANK DO PRINASSIGN
ACTIVATE POPUP PRIN
ACTIVATE SCREEN
RETURN


PROCEDURE PRINASSIGN
*PRINANS = SPACE(50)
DO CASE
 CASE BAR() = 4
*  @ 1,0 SAY "ENTER COMPANY NAME:=" GET PRINANS
 * READ
 * DEACTIVATE WINDOW QUERY
  DO PRIN4
```

```
 CASE BAR() = 6
*  @ 1,0 SAY "ENTER L.V.O.:      " GET PRIANS
 * READ
 * DEACTIVATE WINDOW QUERY
  DO PRIN6
 CASE BAR() = 8
  DO PRIN8
 CASE BAR() = 10
  *@ 1,0 SAY "ENTER YEAR:      " GET PRIANS
  *READ
  DO PRIN10
CASE BAR() = 12
DO PRIN12
ENDCASE
RETURN

PROCEDURE HYDRAI
APPEND BLANK
WRKNAM = SPACE(25)
FILNO = SPACE(8)
EMPDAT = CTOD(' / / ' )
DEPT = SPACE(20)
SALGRAD = SPACE(8)
STORE 0 TO BASIC, ALLOW

@ 3,25 SAY "EMPLOYEE REGISTRATION FORM  "
@ 7,3 SAY "NAME OF PERSON :" GET WRKNAM

@ 9,3 SAY "FILE NO.:" GET FILNO
@ 9,33 SAY "DATE OF EMPLOY :" GET EMPDAT
@ 11,3 SAY "DEPT.:" GET DEPT
@ 11,33 SAY "SALARY GRADE :" GET SALGRAD PICT "AAAAAX99"
@ 13,3 SAY "BASIC SALARY:" GET BASIC PICTURE "99999.99"
@ 13,33 SAY "ALLOWANCES:" GET ALLOW PICTURE "99999.99"
READ
NET = BASIC + ALLOW
@ 13,55 SAY "NET PAY:" GET NET PICTURE "99999.99"
  REPLACE NAME WITH WRKNAM, NUMBER WITH FILNO, EMPLOYDAT WITH
EMPDAT,;
        DEPARTMENT WITH DEPT, GRADE WITH SALGRAD, SALARY WITH
BASIC
 REPLACE ALLOWANCE WITH ALLOW, NETPAY WITH NET
*USE TEMPDAT
*APPEND FROM REGDAT FOR NUMBER = FILNO
RETURN


PROCEDURE HYDRAII
@ 1,3 SAY "NAME OF PERSON :" &&+ NAME
@ 1,20 SAY NAME
@ 3,3 SAY "FILE NO.:" &&GET NUMBER
@ 3,20 SAY NUMBER
@ 3,40 SAY "DATE OF EMPLOYMENT DATE :" &&GET EMPLOYDAT
@ 3,55 SAY EMPLOYDAT
```

```
@ 5,3 SAY "DEPT.:" &&GET DEPARTMENT
@ 5,20 SAY DEPARTMENT
@ 5,40 SAY "SALARY GRADE :" &&GET GRADE
@ 5,55 SAY GRADE
@ 7,3 SAY "BASIC SALARY:" &&GET SALARY
@ 7,20 SAY SALARY
@ 7,40 SAY "ALLOWANCES:" &&GET ALLOWANCE
@ 7,55 SAY ALLOWANCE
RETURN

PROCEDURE HYDRAIII
  REPLACE NAME WITH WRKNAM, NUMBER WITH FILNO, EMPLOYDAT WITH
EMPDAT,;
          DEPARTMENT WITH DEPT, GRADE WITH SALGRAD, SALARY WITH
BASIC
  REPLACE ALLOWANCE WITH ALLOW, NETPAY WITH NET
RETURN

     *PROCEDURE HYDRAIV
*USE REGDAT &&INDEX REGDAT.NDX
*INFO = SPACE(8)
*ACTIVATE WINDOW QUERY
*@ 0,0 SAY "ENTER FILE NUMBER:" GET INFO
*READ
*USE REGDAT
*SET ORDER TO NUMBER
*LOCA FOR NUMBER = UPPER(INFO)
*IF .NOT. FOUND()
*CLEAR
* @ 0,0 SAY "FILE NUMBER NOT IN DATABASE!! Press any key to
continue.."
*temp = INKEY(0)
*ENDIF
*DEACTIVATE WINDOW QUERY
*ACTIVATE SCREEN
*RETURN

PROCEDURE REG
FILENO = SPACE(8)
DEFINE WIND REGADD FROM 2,2 TO 20,78
USE REGDAT
DEFINE WINDOW QUERY2 FROM 5,5 TO 14,70
ACTIVATE WINDOW QUERY2
@ 1,1 SAY "ENTER EMPLOYEE'S NUMBER FROM VALIDATION" GET FILENO
PICT "AA999999"
READ
LOCATE FOR NUMBER = UPPER(FILENO)
IF FOUND()
@ 3,1 SAY "EMPLOYEE'S NUMBER ALREADY EXIST"
@ 5,1 SAY "PRESS ANY KEY TO CONTINUE..."
WAIT" "
*ELSE
*ENDIF
DEACTIVATE WINDOW QUERY2
```

```
RETURN
ELSE
*RETURN
ACTIVATE WINDOW REGADD
DO HYDRAI
USE TEMPDAT.DBF
APPEND FROM REGDAT FOR NUMBER = FILENO
@ 15,1 SAY "PRESS ANY KEY TO CONTINUE..."
WAIT" "
ENDIF
DEACTIVATE WINDOW QUERY2
DEACTIVATE WIND REGADD
RETURN

PROCEDURE PROM
USE REGDAT &&INDEX REGDAT.NDX
INFO = SPACE(8)
ACTIVATE WINDOW QUERY
@ 0,0 SAY "ENTER FILE NUMBER:" GET INFO
READ
USE REGDAT  INDEX REGDAT.MDX
LOCA FOR NUMBER = UPPER(INFO)
IF .NOT. FOUND()
CLEAR
 @ 0,0 SAY "FILE NUMBER NOT IN DATABASE!! Press any key to

 STORE 0.00 TO NEWSAL
 PRODAT = CTOD(' / / ')
 WRKNAM = SPACE(25)
FILNO = SPACE(8)
EMPDAT = CTOD(' / / ' )
DEPT = SPACE(20)
SALGRAD = SPACE(8)
STORE 0 TO BASIC, ALLOW
@ 1,25 SAY "EMPLOYEE REGISTRATION FORM  "

@ 3,3 SAY "EMPLOYEE'S NAME :" GET WRKNAM
@ 5,3 SAY "FILE NO.:" GET FILNO
@ 5,33 SAY "DATE OF EMPLOY :" GET EMPDAT
@ 7,3 SAY "DEPT.:" GET DEPT
@ 7,33 SAY "SALARY GRADE :" GET SALGRAD PICT "AAAAA999"
@ 9,3 SAY "BASIC SALARY:" GET BASIC PICTURE "99999.99"
@ 9,33 SAY "ALLOWANCES:" GET ALLOW PICTURE "99999.99"
@ 11,3 SAY "NEW BASIC SALARY:" GET NEWSAL PICTURE "0"
@ 11,3 SAY "DATE OF PROMOTION:" GET PRODAT
READ
NET = BASIC + ALLOW
@ 13,3 SAY "NET PAY:" GET NET PICTURE "99999.99"
 IF TEM2 = DEPT
  NULL = "NO CHANGE"
 ELSE
  NULL = TEM2
 ENDIF
 USE PROMDAT
```

```
  APPEND BLANK
  REPLACE NAME WITH WRKNAM, NUMBER WITH FILNO, EMPLOYDAT WITH
EMPDAT,;
          DEPARTMENT WITH DEPT, GRADE WITH SALGRAD, SALARY WITH
BASIC
  REPLACE ALLOWANCE WITH ALLOW, NETPAY WITH NET
  REPLACE SALARY WITH NEWSAL, DEPARTMENT WITH NULL &&, PROMDAT
WITH PRODAT
 ENDIF
 USE TEMPDAT
 DELE FOR NUMBER = FILNO
 PACK
@15,5 SAY "PRESS ANY TO CONTINUE....."
WAIT" "
DEACTIVATE WINDOW AUXPROM
 ACTIVATE SCREEN
 *ENDIF
RETURN

PROCEDURE TERM
INFO = SPACE(8)
ACTIVATE WINDOW QUERY
@ 0,0 SAY "ENTER FILE NUMBER" GET INFO
READ
USE SACKDAT.DBF
APPEND FROM REGDAT.DBF FOR NUMBER = INFO
USE TEMPDAT
DELE FOR NUMBER = UPPER(INFO)
PACK
USE REGDAT
LOCA FOR NUMBER = UPPER(INFO)
 DELETE
PACK
USE
DEACTIVATE WINDOW QUERY
ACTIVATE SCREEN
RETURN

PROCEDURE LV
INFO = SPACE(8)
ACTIVATE WINDOW QUERY
@ 0,0 SAY "ENTER FILE NUMBER" GET INFO
READ
*LOCA FOR NUMBER = UPPER(INFO)
 *IF FOUND()
*  LVCMDAT = CTOD(' / / ')
 * LVENDDAT = CTOD(' / / ')
  *LVMON = 99
  *@ 7,3 SAY "EMPLOYEE NAME:" GET INFO
  *@ 9,3 SAY "LEAVE COMMENCEMENT DATE:" GET LVCMDAT
  *@ 11,3 SAY "LEAVE ENDING DATE:" GET LVENDDAT
  *@ 13,3 SAY "ENTER NO. OF MONTHS:" GET LVMON
  *READ
USE LVDAT.DBF
```

```
  *REPLACE LVNAME WITH INFO, LVMONTH WITH LVMON, LVDATCM WITH
LVCMDAT,;
   *       LVDATEND WITH LVENDDAT
APPEND FROM REGDAT.DBF FOR NUMBER = INFO
REPL ALLOWANCE WITH 0.00
REPL NETPAY WITH SALARY
USE TEMPDAT
DELE FOR NUMBER = INFO
PACK
* ENDIF
DEACTIVATE WINDOW QUERY
ACTIVATE SCREEN
RETURN

PROCEDURE PEN
DEFI WIND QUERY1 FROM 8,10 TO 14,70
INFO = SPACE(8)
ACTIVATE WINDOW QUERY1
@ 1,0 SAY "ENTER FILE NUMBER" GET INFO
READ
NEWSALA = 0

USE PENDAT
 APPEND FROM REGDAT FOR NUMBER = INFO
 @ 2,15 SAY "OLD SALARY"
@ 2,35 SAY NETPAY
@ 3,25 SAY "ENTER NEW SALARY" GET NEWSALA
READ
 REPL NETPAY WITH NEWSALA
USE TEMPDAT
DELE FOR NUMBER = INFO
PACK
DEACTIVATE WINDOW QUERY1
activate SCREEN
RETURN


*PROCEDURE SRCH
 *IF FOUND() = .T.
  *DO HYDRAII
 *ENDIF
 *WAIT
*RETURN

PROCEDURE SRCHPROM
IF FOUND() = .T.
USE PROMDAT
SCAN WHILE NUMBER = SRCHNUM .AND. .NOT. EOF()
  DO HYDRAII
  @ 15,3 SAY "OLD BASIC SALARY:" GET OLDSAL
  @ 17,3 SAY "DATE OF PROMOTION:" GET PROMDAT
  @ 19,3 SAY "OLD DEPARTMENT:" GET OLDDEPT
  @ 21,2 SAY "Press any key to continue search."
  temp = INKEY(0)
```

```
   ENDSCAN
   @ 22,2 SAY "END OF DATABASE!!                    "
   TEMP = INKEY(0)
   @ 5,2 CLEAR TO 22,78
  ENDIF
 RETURN

 ********************************** SEARCH PROCEDURE
 ***************************

  PROCEDURE SRCHGEN
  FILENO = SPACE(8)
  ACTIVATE WINDOW QUERY
  @ 0,0 SAY "ENTER EMPLOYEE'S FILE NUMBER" GET FILENO
  READ
  LOCATE FOR NUMBER = UPPER(FILENO)
  DEFI WIND SEARCH FROM 2,2 TO 20,78
  ACTIVATE WIND SEARCH
  IF FOUND()
   SCAN WHILE NUMBER = FILENO .AND. .NOT. EOF()
   @ 3,3 SAY "EMPLOYEE NAME :"
   @ 3,20 SAY NAME
   @ 3,40 SAY "FILE NUMBER     :"
   @ 3,60 SAY NUMBER
   @ 5,3 SAY "DEPARTMENT    :"
   @ 5,20 SAY DEPARTMENT
   @ 5,40 SAY "EMPLOYMENT DATE :"
   @ 5,60 SAY EMPLOYDAT
   @ 7,3 SAY "GRADE LEVEL   :"
   @ 7,20 SAY GRADE
   @ 7,40 SAY "BASIC SALARY   :"
   @ 7,60 SAY DEPARTMENT
   @ 9,3 SAY "ALLOWANCE     :"
   @ 9,20 SAY ALLOWANCE
   @ 9,40 SAY "NET PAY        :"
   @ 9,60 SAY DEPARTMENT
   @ 11,3 SAY "Press any key to continue search."
   ENDSCAN
   @ 12,3 SAY "END OF DATABASE                    "
WAIT" "
@ 3,2 CLEAR TO 22,78
ENDIF
DEACTIVATE WINDOW SEARCH
DEACTIVATE WIND QUERY
ACTIVATE SCREEN
RETURN

********************************** END SEARCH PROGRAM
************************

PROCEDURE SRCHREG
DO SRCHGEN

PROCEDURE SRCHPROM
```

```
DO SRCHGEN

PROCEDURE SRCHTERM
DO SRCHGEN

PROCEDURE SRCHPEN
DO SRCHGEN

PROCEDURE SRCHLV
USE LVDAT
DO SRCHGEN

******************************** PRINT PROCEDURE
********************************

PROC PRINGEN
DEFINE WINDOW PRINMENU FROM 2,2 TO 20,78
RESP =SPACE(1)
ACTIVATE WINDOW QUERY
@ 0,10 SAY "SEND OUTPUT TO PRINTER [Y/N]?  "  GET RESP
READ
DEACTIVATE WINDOW QUERY
ACTIVATE WINDOW PRINMENU
DO CASE
     CASE RESP $ "yY"
       SET DEVICE TO PRINTER
       LIST TO PRINT
       SET DEVICE TO SCREEN
     CASE RESP $ "nN"
       SET DEVICE TO SCREEN
       DO WHILE .NOT. EOF()
       LIST NEXT 7
      WAIT" "
ENDDO
ENDCASE
DEACTIVATE WINDOW PRINMENU
RETURN
****************************** END PRINT PROCEDURE
**********************

PROCEDURE PRIN4
USE PROMDAT
DO PRINGEN

PROCEDURE PRIN6
USE SACKDAT
DO PRINGEN

PROCEDURE PRIN8
USE PENDAT
DO PRINGEN

PROCEDURE PRIN10
USE LVDAT
```

```
DO PRINGEN

PROCEDURE PRIN12
USE REGDAT
DO PRINGEN

***************************** DISENGAGING FROM PACKAGE
***********************

PROCEDURE PAYROLL

SET BORDER TO
 SET BORDER TO PANEL
 DEFINE POPUP SEARCH1 FROM 7,3 TO 17,19
 DEFINE BAR 2 OF SEARCH1 PROMPT " PAYROLL SHEET" SKIP
 DEFINE BAR 3 OF SEARCH1 PROMPT "    OPTIONS" SKIP
 DEFINE BAR 4 OF SEARCH1 PROMPT "   ~~~~~~~~~" SKIP
 DEFINE BAR 5 OF SEARCH1 PROMPT " PRINT PAYROLL"
 DEFINE BAR 7 OF SEARCH1 PROMPT " PAYROLL QUERY"

ON SELECTION POPUP SEARCH1 BLANK DO PRNASSIGN
ACTIVATE POPUP SEARCH1
RETURN

PROCEDURE PRNASSIGN
SET ESCAPE ON
ACTIVATE SCREEN
@ 6,23 CLEAR TO 23,78
FILENO = SPACE(8)
ACTIVATE WINDOW QUERY
DO CASE
 CASE BAR() = 5
  *USE PAYROLL
  DO PAYPRINT
   CASE BAR() = 7
  USE PAYROLL
  DO PAYQUERY
  ENDCASE
RETURN
********************************** END PROCEDURE PAYPRINT
****************************
PROCEDURE PRNHEAD
@ 0,10 SAY "EMPLOYEE'S PAYROLL SHEET FOR THE YEAR "
@ 0,48 SAY YEAR(DATE())
@1,8 SAY "************************************************"
?
RETURN

PROCEDURE PAYPROG
USE PAYROLL
DELE ALL
PACK
APPEND FROM TEMPDAT
APPEND FROM PROMDAT
```

```
APPEND FROM LVDAT
APPEND FROM PENDAT
RETURN

PROCEDURE PAYPRINT
DO PAYPROG
USE PAYROLL

DEFINE WINDOW PRINMENU FROM 2,2 TO 20,78
RESP =SPACE(1)
ACTIVATE WINDOW QUERY
@ 0,10 SAY "SEND OUTPUT TO PRINTER [Y/N]?  "  GET RESP
READ
DEACTIVATE WINDOW QUERY
ACTIVATE WINDOW PRINMENU
DO CASE
     CASE RESP $ "yY"
       SET DEVICE TO PRINTER
       LIST NAME,NUMBER,DEPARTMNET,GRADE,NETPAY TO PRINT
       SET DEVICE TO SCREEN
     CASE RESP $ "nN"
       SET DEVICE TO SCREEN
       DO PRNHEAD  && CALL HEADING FOR PRINTING
       SET TALK OFF
       DO WHILE .NOT. EOF()
       LIST NEXT 7 NAME,NUMBER,DEPARTMENT,GRADE,NETPAY

      WAIT" "
ENDDO
ENDCASE
DEACTIVATE WINDOW PRINMENU
SET TALK ON
RETURN

PROCEDURE PAYQUERY
DO COMPFILE.PRG

********************************** PROCEDURE FOOTAGE
**************************

PROCEDURE FOOTAGE
CLEAR
DEACTIVATE WINDOW LOGO
DEACTIVATE WINDOW BIGWIN
@ 1,0 SAY " The`P.P.R Compro Database'By ROBINSON M.O.A., Version
1.0, Copyright (c), 1996."
ACTIVATE WINDOW QUERY
ANS = "N"
@ 0,10 SAY "ARE YOU SURE YOU WANT TO EXIT NOW {Y/N}:" GET ANS
PICTURE "Y"
READ
IF UPPER(ANS) = "N"
 DEACTIVATE WINDOW QUERY
 ACTIVATE WINDOW BIGWIN
```

```
 ACTIVATE SCREEN
 ACTIVATE WINDOW LOGO
 @ 0,0 SAY "       COMMERCIAL DATABASE"
 ACTIVATE SCREEN
 RETURN
ELSE
 CLEAR
 DEACTIVATE WINDOW QUERY
 DEACTIVATE WINDOW BIGWIN
 DEACTIVATE  WINDOW LOGO
 RELEASE ALL
 SET STATUS ON
 SET TALK ON
 SET BORDER TO
 SET DELIMITERS TO
 SET COLOR TO ,,B
 SET SCOREBOARD ON
 SET ESCAPE OFF
 QUIT
ENDIF
```