# AUTOMATION OF FILLING PATTERN IN A GOVERNMENT PARASTATAL. (A CASE STUDY OF NIGERIA EXPORT PROCESSING ZONES AUTHORITY, ABUJA)

#### BY

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SEPTEMBER, 2001.

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A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS /
COMPUTER SCIENCE, FEDERAL UNVERSITY OF TECHNOLOGY, MINNA IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE
POSTGRADUATE DIPLOMA IN COMPUTER SCIENCE.

SEPTEMBER, 2001

## **APPROVAL PAGE**

This project work has been r	ead and app	roved by the und	lersigned, as	meeting
the requirements of the I	Department	of mathematics	/computer	science,
Federal University of Technol	ogy Minna .			
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# **DEDICATION**

#### TO GOD BE THE GLORY

This work is dedicated to my dearly beloved mother, Mrs F.A Ikuegbu.

No one but her-my special mother.

#### **ACKNOWLEDGEMENT**

To God be the glory in high heavens. I gratefully acknowledge the inspiration that came from God that guided me throughout the programme.

My special thanks goes to my Supervisor Dr Yomi Aiyesimi whose intellectual input and the special time he devoted to this work is worthy of thanks. Despite his tight schedule, he still found time to see that the project is giving its due attention and correction.

To the current Head of department we thank you for your support to us all. To our lecturers in various courses, we shall ever remain grateful for the concern shown.

My gratitude extends to my boss- Mallam Ibrahim Musa Shaya, (Executive Director, Operations) for his continuous professional advice and encouragement.

Also my sincere gratitude to the entire staff of NEPZA Management staff who have assisted me in one way or the other.

To my sisters, brothers and others, I will forever remain grateful to you all for your concern, encouragement and moral support. Also to a special individual-M/S Chika Obi, you have been a wonderful pal. Together we shall make it in Lord's grace.

To my classmates, what else? The fun was great, the group was like one family. I say bravo to you all.

#### **ABSTRACT**

The importance of having an efficient storage device and effective channel of Information dissemination both within and outside the organization cannot be over stressed. Information is the vital "organ" of any establishment, the need for an effective and efficient way of controlling, accessing and retrieving information depict the relevance of any establishment.

It is in this premise that the project focuses on how confidential and very important documents can be filled up in the organization.

A dbase IV programming language will be used to achieve the required features. This is due to its vast nature, Versatility and User's friendliness.

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#### **CHAPTER ONE**

#### 1.0 INTRODUCTION

#### 1.1 BACKGROUND OF THE STUDY

In an organization, files are set up to centralize information. They are organized in such a way that personnel can refer to the information in them without hunting for it in a "hit or miss fashion ". The need for quick and efficient sorting and distribution of information to office personnel, who in turn process and apply them to data already in the office cannot be over emphasized. This account for why an organization must keep an accurate and up to data records about its staff.

The document and information contained are split into various files with headings and sub-headings principally for two major reasons. First, information concerning each activity of an organization is consolidated for processing. Second, finding information on a particular subject matter will be almost impossible or extremely tedious if they were all contained in big alphabetically or serially numbered file.

- Continuously, information are retrieved from files to
- (i) answer an inquiry made either from within the organization or from without .
- (ii) obtain information needed for the processing of some other document in the office.

- (iii) to up date the status of specific area of a business or organization with new information.
- (iv) to consolidate and summarize information found in a number of different records.

For business today, in all the processes of inputting, sorting, distributing input data, preparing and distributing output documents, employing manual method only could be expensive, cumbersome and under productive considering the volume of data to be processed and the promptness of the expected result.

Truly purely mechanical equipment is gradually disappearing from modern offices. Most such equipment have electromechanical counterpart; there are electric typewriters and adding machines to replace manual ones, electric calculators to replace slide rule and electric duplicating machine to replace those which must be mechanically cranked.

In every human endeavor time is very precious. Time needs to be spent judiciously not wasted. Time spent on searching for an organization's employee file, could be conserved if the processes involving file processing are automated.

There are various systems of manual filling. Among these are;

- (a) Alphabetical Filing system;
- (b) Number Filing system;

- (c) Alpha-numeric Filing system;
- (d) subject Filing system; and
- (e) Geographical Filing system;

#### (a) Alphabetical Filing System

This system is the one most commonly used in offices. It takes as the filing word, the surname of the correspondent. As many people share the same surname, it will be necessary to look also at forenames to decide the final order. Rules must be followed to ensure correct filing and easy location of more complicated names. A filing label shows the filing word first. For James Crowe & CO. L td., the label would read

#### CROWE & CO. LTD., JAMES

Two kinds of folder are opened. Individual ones, Like the one above, containing original letters received, and carbon copies of letters sort out, to one particular correspondent.

#### (b) Numerical filing System

This is filing by numbers. In some cases the numbers already exist and used.

An example is "Insurance policy numbers" In other instances a number has to be allocated to the file. The main reasons why a firm may choose to use this system instead of the more common alphabetical system are as follows:

- i. A number is already being used and so it is convenient to keep filing in order this way, for example insurance policy numbers, Mortgage roll numbers.
- ii. Since many people have the same surname and sometimes even indentitical forenames, hospitals cannot risk any confusion as patients might be given the wrong treatment. Therefore, every patient is allowed an individual number which is used throughout all departments.
- iii. It is economical when a firm is starting up a filling department because there is no need to allow for expansion throughout the files. Drawers in a filling are filled up one at a time and it is only when the last drawer is full that a new cabinet is purchased. An alphabetical index is required when numerical filing is in use.

#### C. Alpha Numeric Filing System

This gives the advantages of both systems. There is a broad division into sections by he alphabet and then more detailed division according to the number allocated.

#### d. Geographical Filling System

Sometimes where a firm is situated is important, particularly for overseas customers, and it is easier to classify by place name than by the name of the customer.

This system is usually chosen when territories are divided up amongst representatives, or where an agent is appointed for a specific area. This keeps all the contracts for each area together in the files.

If only home files are kept in this system, the first division could be state. After that the city town would be considered. Usually, however, it is necessary to file first by country, then, if required, by state and finally by city town. Within each section, the files are maintained in alphabetical order.

#### e. Subject Filling System

The order would still be alphabetical, but by subject not surname. If needed an alphabetical index could also be kept to show the names of people involved in the various subjects.

Today, the reasons for filling goes beyond the need to provide a record of transaction for future reference, keeping the office tidy and protecting of documents but also the need to provide easy and quick retrieval of information, protect the information from unauthorized user, centralize filling, reduce space being occupied by storage devices, achieve data integration, reduce or eliminate data redundancy and maintain data integrity.

Unfortunately, neither one or nor combination of the manual filling system described above could achieve all these reason indeed. Majority of the organization in this country are still using manual system of filling. It is on this note that the project is focused on this topic with the understanding that the

output of the work will be very useful to Nigeria Export Processing zones

Authority.

#### 1.2 OBJECTIVE OF THE STUDY

- (1) To properly co- ordinate all the files of the organization (NEPZA)
- (2) To draw up a comprehensive design and analysis that will be used to computerize the system.
- (3) To investigate the various problems associated with the present system of filing documents in the entire authority.
- , (4) To provide a logical and physical design of a computerized filling pattern that will suit the entire authority.

#### 1.3 METHODOLOGY

There are many fact findings technique. Some of which are questionnaire, interviewing, observation and record inspection. However, for the purpose of this project, interviewing, observation and record inspection were employed. These three methods were found suitable based on the following reasons:-

- (i) The number of interviewees are very few and are in the same organization and easily accessible.
- (ii) Being a staff of the organization, one is privileged in the present filling system and also has easy access to some of the records that were required for the project work.

#### 1.4 DEFINITION OF TERMS

- (1) **COMPUTER**: Is an electronic device that is capable of accepting data (input), storing, processing the data and producing information (output) fastly, accurately and thus more efficiently than human efforts.
- (2) SYSTEM: This can be defined as a collection of components either physical or non physical in nature which one another towards achieving a common objective.
- (3) COMPUTER SYSTEM: This is made up of the user; the hardware, and the software and has a goal of solving problems for the user.
- (4) DATA: This is a term used to describe basic facts about the activities of a business, or new facts that are fed into the computer for processing.
- (5) INFORMATION: Is data that have been processed into a form that is useful to the user.
- (6) FILE: Is a collection of meaningful information to which the user can attach a name.

#### **CHAPTER TWO**

#### 2.0 THE EXPORT PROCESSING ZONES' CONCEPT

Essentially, Export Processing Zones (EPZs) are specially designated areas outside a nation's customs barriers. The legal and economic incentives in these zones are applied to promote export trade and earnings. The companies operating within the enclave enjoy favourable incentives with regards to the importation of raw material inputs or intermediate goods, taxation and infrastructure.

Other industrial regulations applying elsewhere in the country are waived for these companies, though these privileges presupposes that the output from these companies are exported and that all the imported goods are use within the zones or re-exported elsewhere.

The basic concept of the EPZ dates back to the free ports of City States in Mediaval Europe. This early concept only allowed for the movement of goods in and out of the port, free from duties, usually merely for transhipment purposes. This concept has evolved over the years to reflect the changing needs of developing countries whose objectives are to concentrate resources, facilitate the internal adjustment process and create greater internal and external visibility for their policy re-orientation.

The host country usually benefits from the EPZ schemes as they contribute immensely to the growth of both domestic and External sectors of

the country's economies. Looking at the situation in such developing countries as Hong Kong, South Korea, Singnapore, Taiwan, Thailad and Mauritius, the EPZ schemes have been successfully operated and these have helped to:

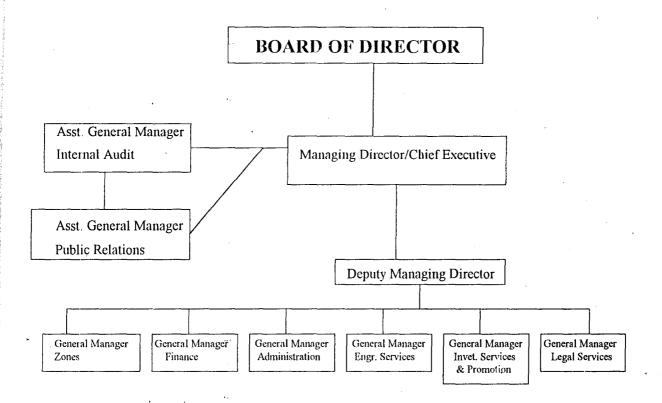
- Stimulate the country's industrial and primary commodity export development;
- Contribute to rapid industrialization through the operation of medium scale industries and Technology transfer;
- Provide employment and skill transfer opportunities as well as human resources development and to;
- Guarantee constant supply of the scarce foreign exchange.

#### 2.1 SPECIAL INCENTIVES IN THE ZONE

- Legislative provision pertaining to taxes, levies, duties and foreign exchange do not apply within the Zone.
- Tax holiday
- Repatriation of foreign capital investment in the EPZ t any time with capital appreciation on the investment.
- Unrestricted remittance of profits and dividends earned by investors in the Zone.
- No import or export licences required

- Rent free land during construction of factory space.
- 100 percent foreign ownership of enterprises in the EPZ allowable.
- "One –stop" approvals.
- Sale of up to 25 percent of production permitted in the domestic market.

# 2.2 NIGERIA EXPORT PROCESSING ZONES AUTHORITY ORGANISATIONAL STRUCTURE



#### 2.3 THE EXISTING SYSTEM

Like every other conventional system, the present filing system is manually operated. For reference purposes, officers are assigned to physically search and locate the cabinent storing all the files of personnel.

However, the following Limitations appeared imminent:-

- (1) The existing mode of operation is slow in all aspects which involves the data collection, processing and retrieval.
- (2) The System is prone to great errors.
- (3) Misrepresentation and misplacement of facts relating to personnel data is very mminent.
- (4) There is no confidentiality in the handling of some staff personnel information.
- (5) Improper record keeping process, hence duplication and misplacement of records.
- (6) Delay and untimely information useful for timely decision making.

In recognition of these problems therefore, the advantage to be derived in a computerized personnel Management system cannot be over emphasized.

#### 2.4 HOW THE PRESENT SYSTEM WORKS

Like every other conventional system, the present filing system is manually operated. For reference purposes, officers are assigned to physically search and locate the cabinets storing all the files of personnel. The required files are located and the information needed retrieved. There could be as many cabinets as possible depending on the size of the organization. The assigned officer reads all the documents in files before he gets the exact information. This could take several hours or even days.

<u>DATA STORAGE:-</u> Data element, raw or processed in froms of letters, reports, manuals are kept in files and stored in cabinets. The size of the cabinets depend solely on the volume of documents to be stored. In some organizations, such as schools, Hospitals, Banking and Financial institutions large cabinets are conspicuously displayed and considerable office space is occupied. This is expensive to maintain as lock and keys are always purchased along with every cabinet.

DATA RETRIEVAL:- This process (manual) is cumbersome when document is to be retrieved. This is noticeable in the countenance of a confused, exhausted and worried officer or secretary when data elements are taking him or her hours or even days to locate. The file containg the required information cannot be located. Sometimes, even if the file is seen, the essential document needed may not be in it.

<u>DATA PROCESING:</u> Due to the manner in which data is stored and retrieved, this aspect is also very tedious. The secretary or any other assigned officer needs to locate the data and use them in replying to a request. It had

been observed that a reply to a particular request is typed and severally retyped due to one correction or the other. At the end, the produced document cannot be described as "professionally looking material." This is because there are evidences of typographical errors, errors of omission or commission, spelling mistakes, error due to the use of correction fluids, typing eraser and so on. In fact, the produced documents are seldom sub-standard and unpresentable.

RECORDS VIEWING:- Record viewing procedures is similar to data retrieving. The necessary files containing the documents are searched for, retrieved and the records viewed. This process take a lot of time as earlier stated.

RECORDS UPDATING AND DELETION:- For every procedure to be accomplished, the files containing the necessary documents have to be located and the documents retrieved. The addition or deletion is carried out. The operations are frequently carried out in any organization. The repetitive nature, and the promptness expected from these processes make manual records keeping technique inefficient, outdated, slow and very expensive.

#### TIME TAKEN BY THE PRESENT SYSTEM IN DATA PROCESSING

Data processing is the term used for the process of producing meaningful information by collecting all items of data together and performing operation

on them to extract the required information from them. The process of handling all aspect of information within an organization is virtually the same.

The difference is in the methods employed in the processing.

- 2.5 <u>BACKLOG OF WORK DUE TO SEASONAL INFLUENCES:</u> It is useful to mention here that, in conventional method backlog of work due to seasonal influences exist as a result of the slow pace at which data are processed. Some activities are frequently carried out in particular periods of the year. These include:-
  - Processing of leave and leave allowances of staff
  - Travelling allowances of staff going for seminars, workshops, overseas and conferences.
  - Annual increments of staff.
  - Recruitment exercise for new Staff (both at home and abroad)

#### **FINDINGS**

The existing system has the following inadequacies:-

- i. The manual system is very expensive to maintain.
- ii. Very slow access to information, tedious, energy sapping and uninteresting.

iii. The manual system of filing is very ineffective, inefficient and unreliable.

#### 2.5 THE NEED FOR COMPUTERIZATION

The manipulation and interpretation of data generates information which in turn is used in the decision making process by managers. The realization of the importance of data has meant that there is need for proper management and efficient organization of data.

Computers did not only serve as an efficient storage medium, but also assisted or facilitated effective sorting editing, updating and other complex multitasking processes. It has been discovered that the introduction of a computer into an organization marks the disappearance of long cabinets.

Information processing is another area where computerization of procedures is being appreciated. Letters, reports, staff list, inventory, budgets and other necessary document are produced on schedule with ease.

Repetitive tasks are better handled with computer rather than the conventional method. In a matter of seconds data entered into the computer returns as usable information. To an untrained person, the computerized processing of data seems magical.

#### 2.7 BENEFITS OF COMPUTERIZATION

It is hard to think of nay aspect of our society that is not affected by some form of computerization. The computer is used to prepare a company payroll, print monthly customer statements, reserve seats on a jet plane, govern the flow of traffic during rush hours through control of traffic light, prepare weather forecasts for the entire country and several other areas of application. Business people must be practical and able to judge the economic realities of installing a computer. Several factors can make an organization to use a computer. Some of these factors are speed. Accuracy and reliability.

Computer can be used in an organization to achieve the following objectives:-

- (i) To reduce complex calculations into smaller forms.
- (ii) To help in making an easier, accurate and reliable logical comparison between things.
- (iii) To ease the cumbersomeness of inflow and outflow of data and information respectively.
- (iv) To help in efficiently storing, filling and processing data and information.

If the present conventional system gives way to a computer based system, the following are benefits realizable:

- 1. Cost reduction in services of the authority
- 2. Speedy information retrieval
- 3. Reduction in storage space and materials
- 4. Data centralization and effective management.

## MANUFACTURERS LIST IN ZONE

S/NO	Name of Company	Line of Production	Ownership
			Structure
1.	Combination	Extruded Snacks	Indian/America
	industrial Limited		
2.	Kevin Woods	Wood Processing	Chinese
	Industrial Limited		·
3.	Golden Gainat	Textiles and germent	India/Nigeria
	Industries		
4.	Ayos Wood	Wood Processing	Chenese
	International		
5.	Larnagold Limited	Texiles and Fabrics	Nigeria
6.	Union Forest	Wood Processing	Nigeria
\$	Industries		
7.	Bao Yao Huan Jian	Iron and Steel	Chenses
	Iron & Steel		
8.;	Kanuaco	Interlining, Parly Shield	US_ Nigeria
	Technology	and Wipers	
٠,	Corporation		
9.	Engr. Huat Rubber	Rubber Processing	Taiwanese
	Industry Inc.		/Malayisa
10	SOSEGA	Vegetable	Nigeira

#### **CHAPTER THREE**

#### 3.0 SYSEMS ANALYSIS AND DESIGN

#### 3.1 INTRODUCTION

The detail investigation of the present system or the exploratory survey, commonly referred to as system analysis, involves collecting, organizing and evaluating facts about the present system and the environment in which it operates.

This section considers the logical design of the proposed system which contains the design specification of the system. It focuses on the features of the system in relations to the output specification, input specification, file and procedures.

The importance of doing a thorough exploratory survey cannot be over emphasized. It is extremely essential for the future well-being of the organization that this time- consuming must be done accurately and methodically.

#### 3.2 TESTING THE PROJECT FEASIBILITY

Testing or a review of the methods and procedures of the present project feasibility is necessary. The purpose of such a test is to verify that the outlined benefits are; infact being achieved.

- 1. Operational Feasibility:- This is concerned with the workability of the proposed system. When developed and installed, generally what is considered is that, the project has to receive the support of the management and user.
- 2. Technical Feasibility:- This seeks to clarify of the proposed project can be done with the current equipment, existing software and personnel.
- 3. Financial/Economical Feasibility:- This aspects taken into consideration to access cost of implementing a proposed project along side with the benefits to be derived from implementing it.

# 3.3 REQUIREMENT SPECIFICATION FOR THE PROPOSED NEW SYSTEM

Requirement for the proposed new system is a feature that must be included in a new system. The requirement determination entails studying the existing system and collecting detailed information about the system so as to find out what their requirement are:-

1. Requirement Anticipation:- These are problems or features that the analyst wished the new system to have as a result of the analysts previous experience.

- 2. Requirement Investigations:- This activity used variety of tools and skills to study current system and document its features for future analysis.
- 3. Requirement Specification:- This activity leads to description of features for a new system based on the analysis of data produced during the fact-finding investigation.

In line with this, Requirement Specification should be thoroughly done, for the quality of the work performed at this point would reflect later in the characteristic of the new system evolved.

#### 3.4 SYSTEM ACTIVITIES -REQUIREMENT

Basically there are two levels of activities in requirement determination

- 1. User Transaction Requirements:- This transaction level captures, processes and stores data. To understand the transaction requirement of a system, a relevant enquiries should be made.
- 2. User decision Requirement:- This utilizes process (UTR) to provide new information for decision making. Timing, Frequency, Specific information needed to make decision, its source, method f processing and how information ought to be presented are basic to the UDR.

# 3.5 COST BENEFITS ANALYSIS OF THE NEW SYSTEM

## 1. HARDWARE PROCEREMENT

. ~•	N	K
485dx 2/66mh2 Processor	190,000=00	
14" Monitor	60,000=00	
CPU	160,000=00	
102, UK KEYBOARD	35,000=00	
Laser Jet Printer 6L	55,000=00	
UPS (100KV)	50,000=00	
Mouse Pad	30,000=00	
	N553,000=0	0
2. <u>SOFTWARE</u>		
Word Processor (6.1 Version)	20,000=00	
Dbase Program	25,000=00	
Current Window	15,000=00	
	N60,000=0	00

#### 3. **DEVELOPMENT COST**

System Analysis and Design for 4weeks

at N10,000 /Week 40,000=00

Software Development for 4weeks at 20,000 80,000=00

Personnel Training & Development for

4 weeks N10,000 40,000=00

N160,000=00

#### **OPERATING COST**

- Consumable for 1 Year

(stationaries, Diskettes etc) 100,000=00

2 Store Officers 120,000=00

Utilities 50,000=00

3A/C (2HP) 120,000=00

Miscellaneous Expensés 50,000=00

N440,900=00

OVERALL COST N1,213,000=00

#### **SYSTEM BENEFITS**

- 1. Reduction in the use of Stationeries
- 2. Sorting and arranging of information in various ways can be done easily and quickly

- 3. Saves staff time and easy transfers of staff can be effected.
- 4. Recovery from over time
- 5. Elimination of many repetitive work opening new files for staff
- 6. Automatic updating of records and maintenance.

#### **CHAPTER FOUR**

#### 4.0 SYSTEM IMPLEMENTATION/DEVELOPMENT

#### 4.1 INTRODUCTION

Implementation involves the coordination of all activities that take place in the various sections of the organization. System may be entirely new, replacing an existing one, automated or a modification of the existing system.

Proper implementation is very important in order to have a reliable system that will meet the organization's needs.

#### **DATABASE MANAGEMENT SYSTEM (DBMS)**

A database management system is a software that constructs, expands, and maintains the data contained in database. It also provide the interface between the user and data in summary, extract, report on and manage data contained in a database.

A database Management System is a software package that helps organizations to

- a. Create and Populate a database
- b. Retrieve data from the database
- c. Generate report from the database
- d. Update information in the database
- e. Maintain integrity and Consistency of data

#### f. Provide Shareability of data to users

There are various packages that are categorized under DBMS. They includes dbase, FoxBASE Informix, Paradox, Oracle etc.

Specifically, the new system is developed in dbase. Because of accessibility, the proposed system is developed using the programming aspect of Dbase IV.

#### 4.2 FEATURES OF DATABASE MANAGEMENT SYSTEM (DBMS)

The prominent features of database package are as follows:-

- (a) Data Integration In a database processing environment, information from several files is co-ordinate, accessed and operated upon as thou it is in a single file. Logically, the information I centralized, while physically, the data may be located in different files. In addition, it is possible for twos or more applications to share compatible data.
- (b) Data Independency: One important feature of the DBMS is that it ensures data independency because application programs are isolated from the physical storage of data. This feature seeks to allow for changes in the content and organization of physical data without reprogramming the application program using it, and also to allow for modification of application program without re-organising the physical data.

(c) Elimination of Data Redundancy: Data redundancy occurs when the same data appears in one or more files. This leads to wastage of storage space and application of effort during data entry. One basic features of DBMS is that it eliminates data redundancy since data are not duplicated in different files.

#### 4.3 HARDWARE REQUIREMENTS

The proposed System requires the following:-

- a. Personal Computer 836 Main Processor
- b. Ram 64 MB
- c. Floppy Disk Drive 3.5/5.25
- d. Colour Monitor
- e. Laser Jet Printer (6L Model)
- f. Stabilizer (100 KVA)
- g. U.P.S (200 KVA)

#### 4.4 **SOFTWARE REQUIREMETS**

- -MS-Dos 6.0 Version
- -Window 95/97 version
- -Dbase IV/Fox. Pro

### 4.5 FILE CONVERSION/CHANGEOVER PROCEDURE

There are basically 4 methods of changeover procedures

- 1. parallel Method:- Here the old and new Systems are run concurrently, using the same inputs. Th outputs are compared and reasons for difference resolved. The outputs from the old system continue to be distributed until the new system has proved satisfactory, after which the old system gives way to the new System.
- 2. Direct Conversion:- Here an entire new system is installed. The old system is completely dismantled, and the new system becomes operational immediately.
  - 3. Phased Conversion:- This is a gradual system of conversion. Here components of the new system are implemented one at a time into the old system, and the old system is phased out piece by piece.
  - 4. Pilot Conversion it involves the changing over of part of the system either parallel or directly.

# 4.6 STARTING THE PROGRAM

The Filling procedures software was developed in Dbase IV which is the highest version of Dos based Dbase software. An intending user of the system must obtain the Dbase software before the filling procedures program can be implemented.

To start dbase, the user changes directory to the dbase directory and then execute the dbase software by typing "dbase" from the prompt.

C:\> co DBASE IV

C:\DBASE IV \>

C:\DBASE IV \> dbase (Press Enter)

When the dbase software have been executed the dot prompt of dbase finally appears. At the dot prompt, the user can then execute the filling procedure program.

i.e DO FILE then Press Enter

On execution, an introductory screen in displayed first followed by the main menu from which access is gained to the modules of the program.

# **MAINMENU**

The mainmenu is controlled by the use of the arrowkeys and enter key.

The arrow keys are used to move up and down the menu but the enter key when pressed signifies a selection has been made.

**ADD RECORDS** 

**DELETE RECORDS** 

MODIFY RECORDS

REPORT GENERATION

**EXIT** 

# **DESCRIPTION OF THE MAIN MENU**

# (I) ADD RECORDS

The add records option is selected when new records are to be entered in to the databases. The appropriate data values are entered the record is stored in the database

## (2) DELETE RECORDS

At time some records in the database may no longer be valid, thus the record have to be removed from the database. This is made possible by selecting the delete option from the menu.

# 3. MODIFY RECORDS

The modify records option s selected whenever there is a need to effect a change in already existing records.

# 4. REPORT GENERATION

The report generation option is selected to output the result of operations profound on the database. The list of files in their various categories generated.

# 5. <u>EXIT</u>

The exit option allows exit from the software to dbase environment directly to dos.

### **CHAPTER FIVE**

#### 5.0. CONCLUSION/SUMMARY AND RECOMMENDATIONS

### 5.1 CONCLUSION/SUMMARY

The general objective of this project is to tackle the problems and shortcomings of the manual system of filing in an organization by the use of computer system.

The result of the feasibility study that was carried out clearly established the fact that there are lots of benefits that will be derived from the use of computers by the organization. Among the features and benefits are:-

- i. Easy and quick mean of retrieving data and information;
- ii. Fast means of communication of information both within and outside the organization;
- iii. Easy, fast and accurate means of processing data;
- iv. Professional, clean and good looking hard copies print out of reports, documents and memorandum;
- v.' Reduce filing and processing cost; and
- vi Protect documents from unwanted users.

In summary, successful implementation of the new proposed system will aid the organization in both processing and filing of information and thereby help the organization to meet goals.

### 5.2 RECOMMENDATIONS

Considering the numerous advantages that will be derived from the computerization of the filing system in NEPZA the following suggestions are hereby recommended:-

- i. That the organization should edeavour to implement the new proposed system, that is computerizing the filing system in the organization;
- Encourage staff from other departments to undergo computer training, particularly the administrative staff that will be involved in the operation of the new system.
- Among the benefits that the organization will derive from the new system is the reduction in the quantity of stationeries that are required in filing and file cabinets. This will only save the organization huge amount of money but also space that these cabinets occupy in their various offices;
- iv. With the use of computer, the workload, will be reduced. This will also enhance the efficiency and effectiveness of the staff and the organization. The problem of delay in the retrieval of record will be a thing of the past;
- v. The Problem of overtime can be related to workload. Therefore, as long as workload is reduced, there will be no need for overtime. With the implementation of the new system, the issue of overtime due to delay in the retrieved of record will also be a thing of the past. This also save the organization some amount of money.

vi One of the greatest benefits to be derived from the new proposed system if implemented is security of data and information.

# **REFERENCE**

1.	AYO, C.K (1998)	Computer Appreciation. Alanukitan Press, Egbe, Kogi State, Nigeria.
2.	BADAMOSI R. (1998)	Introduction to Computer System Course Material F.U.T Minna (unpublished)
3.	BADAMOSI R. (1998)	System Analysis and Design Course Material F.U.T Minna (unpublished)
4.	EDWARD A.T 91979)	Foundation of Computer in Business. A System Approach Holden-Day Link. San Francsco, U.S.A
5.	FRY T.F (1975)	Computer Appreciation, Clarke Dow Dobie and Brendon Ltd, England
6.	HAROLD Lucas (1976)	Computer n Business Studies Madonald and Evans Ltd., England
7.	OLIVER E.C and CHAP	MAN R.S (1990) Data Processing and Information Technology DP Publication Ltd.
8.	RAHEEM K. (1996)	Database Management System: Course Material F.U.T Minna (unpublished)

**SET DISPLAY TO EGA25** SET SPACE OFF SET CONSOLE ON SET DELETED OFF SET BELL OFF SET ECHO OFF SET TALK OFF **SET PRINT OFF** SET CLOCK OFF SET SAFETY OFF SET SCORE OFF SET CONFIRM ON SET DATE TO BRIT SET CARRY OFF SET CENTURY ON SET INSTRUCT OFF SET DELIMITERS OFF SET ESCAPE ON SET MESSAGE TO "" SET DEVICE TO SCREEN SET STATUS OFF CLEA ALL SET COLOR TO GR+, G, G CLEAR DO INTRO CLEAR DO DESIGNSC ABORT = ' ' DO WHILE ABORT = ' ' DO DEFIN DO MAIN **CLEAR ENDDO** 

#### PROCEDURE DEFIN

IF ISCOLOR()

RETURN

SET COLOR OF BOX TO GR+/BG

SET COLOR OF NORMAL TO W+/B

SET COLOR OF HIGHLIGHT TO GR+/BG

SET COLOR OF MESSAGES TO W+/N

SET COLOR OF TITLES TO W/B

SET COLOR OF FIELDS TO N/BG

SET COLOR OF INFORMATION TO B/W

**ENDIF** 

#### SET BORDER TO DOUBLE

\* SET BORDER TO DOUBLE
DEFINE POPUP MAINMENU FROM 1,25
DEFINE BAR 1 OF MAINMENU PROMPT "MAIN MENU" SKIP

```
DEFINE BAR 2 OF MAINMENU PROMPT "=========== " SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "ADD RECORD(s)":
  MESSAGE "Addition of record(s) to the database file"
DEFINE BAR 4 OF MAINMENU PROMPT "DELETE RECORD(s)";
 MESSAGE "This option allows deletion of record(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "MODIFY RECORD(s)";
 MESSAGE "This option allows modificatio of record(s)"
DEFINE BAR 6 OF MAINMENU PROMPT "VIEW RECORD(s) ":
 MESSAGE "This option allows you to view records"
DEFINE BAR 7 OF MAINMENU PROMPT "REPORT SUMMARY";
 MESSAGE "This option allows Generation of reports"
DEFINE BAR 8 OF MAINMENU PROMPT "E X I T ":
 MESSAGE "You want to Shutdown"
ON SELECTION POPUP MAINMENU DO MAIN PARA
*----> Popup for Exit
DEFINE POPUP EXITM FROM 7,45
DEFINE BAR 1 OF EXITM PROMPT "EXIT MENU" SKIP
DEFINE BAR 2 OF EXITM PROMPT "========== SKIP
DEFINE BAR 3 OF EXITM PROMPT "EXIT TO PROMPT";
 MESSAGE "Return to the Dbase Prompt"
DEFINE BAR 4 OF EXITM PROMPT "EXIT TO DOS ":
 MESSAGE "Shutdown and return to DOS"
ON SELECTION POPUP EXITM DO EXIT PARA
PROCEDURE INTRO
CLEAR
@ 5,20 TO 20,64 DOUBLE
@ 7,22 SAY "TOPIC : FILLING PROCEDURES "
@ 8,22 SAY "
                  IN AN ORGANISATION "
@10,22 SAY " CASE STUDY: NIGERIAN EXPORT PROCESSING "
@11,22 SAY " ZONES AUTHORITY (NEPZ)
@13,22 SAY "BY : EBERE IKWUEGBU
WAIT ""
RETURN
PROCEDURE DESIGNSC
* -----> This section design the screen
HEAD1 = "****
HEAD2 = "FILLING PROCEDURES IN AN ORGANISATION"
HEAD3 = "*****************
HEAD4 = " "
@0.0 TO 23.79 DOUBLE COLOR W+
DEFINE WINDOW MAINSC FROM 1.1 TO 22.78 NONE COLOR W+/B
DEFINE WINDOW WORK IN FROM 7,5 TO 21,75 DOUBLE COLOR W+/B
X1 = MAX(LEN(TRIM(HEAD1)), LEN(TRIM(HEAD2)))
X2 = MAX(LEN(TRIM(HEAD3)), LEN(TRIM(HEAD4)))
X = INT((80-MAX(X1,X2))/2) - 1
Y = X + MAX(X1,X2) + 1
DEFINE WINDOW HEADBY, FROM 2,X-1 TO 6,Y-1 NONE COLOR
DEFINE WINDOW HEADSC FROM 1,X TO 6,Y+1 DOUBLE COLOR W+/G+
```

```
DO CASE
  CASE DAY(DATE()) = 1
    TH = "st "
 CASE DAY(DATE()) = 2
    TH = "nd "
 CASE DAY(DATE()) = 3
   , TH = "rd "
 OTHERWISE
    TH = "th "
ENDCASE
@ 0,5 SAY CDOW(DATE())+", "+ STR(DAY(DATE()),2)+TH+CMONTH(DATE())+", "+
STR(YEAR(DATE()), -; r"."
SET CLOCK ON
SET CLOCK TO 0,60
ACTIVATE WINDOW MAINSC
ACTIVATE WINDC' HEADBK, HEADSC
@ 0,INT((Y-X-LEN(HEAD1))/2)+1 SAY HEAD1
@ 1,INT((Y-X-LEN(HEAD2))/2)+1 SAY HEAD2
@ 2,INT((Y-X-LEN(HEAD3))/2)+1 SAY HEAD3
@ 3,INT((Y-X-LEN(HEAD4))/2)+1 SAY HEAD4
ACTIVATE WINDOW WORK IN
RETURN
PROCEDURE MAIN
ACTIVATE POPUP MAINMENU
RETURN
PROCEDURE MAIN PARA
DO CASE
 CASE BAR() = 3
    DO ADDREC
 CASE BAR() = 4
    DO DELREC
 CASE BAR() = 5
    DO MODREC
 CASE BAR() = 6
    DO VIEWREC
 CASE BAR() = 7
    DO REPORT
 CASE BAR() = 8
    ACTIVATE POPUP EXITM
    DEACTIVATE POPUP
ENDCASE
RETURN
PROCEDURE EXIT_PARA
DO CASE
```

CASE BAR() = 3 ABORT = 'A'

```
CANCEL
CASE BAR() = 4
QUIT
ENDCASE
RETURN
```

```
Procedure ADDREC
 store 'Y' to ans
 set stat off
 use files
 do while ans ='Y'
 clear
 store Space(9) to mfileno
 @1,10 Say "Enter File Number: " get mfileno Pict "!!!-99999"
 read
 locate all for fileno = mfileno
 if found()
  @8,20 say 'File-no already exist'
 store space (20) to mcategory
 store space (25) to mdescrip
 store space (10) to mdatec, mdatel
 store space (7) to mvolumeno
  DO GETDATA
  READ
  clear
  append blank
  replace fileno with mfileno
  replace descrip with mdescrip
  replace volumeno with mvolumeno
  replace category with mcategory
  replace datec with mdatec
  replace datel with mdatel
endif
 @10,10 to 12,50
 store 'N' to ans
 @11,12 say 'Are there more records? (Y/N)' get ans pict '!';
        valid ans $ 'YN' error 'Invalid entry !!!'
 read
enddo
CLEAR
close databases
return
```

Procedure DELREC store 'Y' to ans use files do while ans= 'Y' clea

```
@2,15 to 4,55
  @3,20 say 'Deletion of record'
 store Space(9) to mfileno
 @1,10 Say "Enter File Number: " get mfileno Pict "!!!-99999"
 read
  locate all for fileno = mfileno
  if found()
  @10,10 to 12,50
  store 'N' to reply
  @11,12 say 'Are you sure? (Y/N)' get reply pict '!';
     valid reply $ 'YN' error 'Invalid entry!!!'
  read
  if reply = 'Y'
    dele
    pack
  endif
else
  @8,20 say 'File-no does not exist'
  @10,10 clea to 12,50
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Delete more records? (Y/N)' get ans pict '!'
enddo
CLEAR
close data
return
Procedure MODREC
 use files
 store 'Y' to ans
 do while ans = 'Y'
  clea
 store Space(9) to mfileno
 @1,10 Say "Enter File Number: " get mfileno Pict "!!!-99999"
 read
  locate all for fileno = mfileno
  if found()
    store descrip to mdescrip
    store datec to mdatec
    store datel to mdatel
    store category to mcategory
    store volumeno to mvolumeno
 DO GETDATA
 READ
 clear
  replace fileno with mfileno
  replace descrip with mdescrip
  replace volumeno with mvolumeno
```

```
replace category with mcategory
   replace datec with mdatec
   replace datel with mdatel
else
   @8,20 say 'Record does not exist'
endif
   @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Modify more record? (Y/N)' get ans pict '!';
        valid ans $ 'Y/N' error 'Invalid entry!!!'
  read
enddo
CLEAR
close databases
return
Procedure VIEWREC
 use files
 store 'Y' to ans
 do while ans = 'Y'
  clea
 store Space(9) to mfileno
 @1,10 Say "Enter File Number: " get mfileno Pict "!!-999999"
 read
  locate all for fileno = mfileno
  if found()
     store descrip to mdescrip
     store datec to mdatec
     store datel to mdatel
     store category to mcategory
     store volumeno to mvolumeno
     DO GETDATA
     WAIT
     clear
  else
     @8,20 say 'File-no does not exist'
  endif
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
        valid ans $ 'Y/N' error 'Invalid entry!!!'
  read
enddo
CLEAR
close databases
retum
Procedure REPORT
define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
```

```
set alternate to 'files out'
 set device to screen
     set alternate on
     set space on
     DO HEADING
     store 1 to couter
     use files
     go top
 do while .not. eof()
  ? '|',str(couter,3),' |',fileno,'|',descrip,'|',datec,'|',datel,'|'
  ?? category,'|',volumeno,'|'
  couter = couter + 1
  ? replicate ('-',106)
  skip
 enddo
 set alternate off
 wait
 close data
 deactivate window user
 retum
 PROCEDURE GETDATA
 CLEAR
 @ 3,5 say "FILE DESCRIPTION:" get mdescrip pict "@!"
 @ 5,5 say "DATE CREATED :" get mdatec pict "99/99/9999"
 @ 7,5 say "DATE LAST USED :" get mdatel pict "99/99/9999"
 @ 9,5 say "CATEGORY :" get mcategory ;
    pict "@M Manufacturers files, Staff files, Secret files, Minute files, Project files, Tender &.
 Contracts Export Items"
 @ 11,5 say "VOLUME NUMBER :" get mvolumeno PICT "99/9999"
RETURN
 PROCEDURE HEADING
 ? space(27),"*************
 ? space(27),"* FILLING PROCEDURES IN AN ORGANISATION
 ? space(27),"*
                     A Case Study of
 ? space(27), "* NIGERIAN EXPORT PROCESSING ZONES AUTHORITY *"
 ? space(27)."*************
 ? space(39),"************
 ? space(39),"* SUMMARY OF FILES *"
 ? space(39),"*************
 ? REPLICATE("*", 106)
                              * DATE *
                                           DATE *
                                                                 * VOLUME *"
 ?"* SN * FILE-NO *
                         DESCRIPTION
                                            * CREATED * LAST USED * CATEGORY
 * NUMBER *"
 ? REPLICATE("*", 106)
RETURN
```

FILLING PROCEDURES IN AN ORGANISATION

A Case Study of

\* NIGERIAN EXPORT PROCESSING ZONES AUTHORITY \*

\*\*\*\*\*\*\*

\* SUMMARY OF FILES \*
\*\*\*\*\*\*\*\*\*\*\*\*\*

* *	SN	*	FILE-NO	*	DESCRIPTION	^ ^ * *	DATE CREATED	*	DATE LAST USED	* CATEGORY		VOLUME * NUMBER *
1	1	/   	EXP-03423		RUBBER PROCESSING		01/11/200	0	02/01/2001	Export Items		00/4353
1	2	1	MAN-31222	1	GOLDEN GAINT INDUSTRIES		01/12/199	9	23/11/2000	- Manufacturers files		99/1122
I	3		GDF-34322		JACKQUELN FRANK		02/03/199	9	04/12/1999	Staff files		99/1112
1	4	1	MAN-34566		LARNAGOLD LIMITED	1	02/04/199	9	07/11/2000	Manufacturers files	1	99/2311
   	5	1	HLM-23233		BUILDING OF TOILET		08/12/199	8	22/05/1999	Tender & Contracts		98/2333
	6	_ I	WEE-12233	1	INAUGURAL MEETING	1	10/02/200	0	10/02/2000	Minute files		00/2323
1	7	 	YER-54232		RENOVATION OF QUARTERS		10/10/199	8	01/02/2000	Project files		98/3121
1	8	1	TRS-12443		MR. SHALOCK JONES		10/10/199	9	23/12/1999	Staff files		99/6523
1	9	 	TRE-33332	1	MR. BADESHEUN OJO		10/11/199	9	14/12/1999	Staff files		99/3411
1	10		HGD-34431	1	ELECTRIFICATION PROJECT		11/03/199	9	15/02/2000	Project files		99/2199
I	11		EXP-23333	1	TEXTILES AND GARMENT	1	11/04/200	0	12/02/2001	Export Items	- <b></b>	00/6553
1	12		REW-33221	1	SUPPLY OF COMPUTERS	1	12/01/200	0	23/02/2000	Tender & Contracts	 	00/2114
] 	13		MAN-12677		AYOS WOOD INTERNATIONAL		21/08/199	8	14/05/2000	Manufacturers files		98/4312
ı	14		NHH-33434		FINANCIAL STATEMENTS		23/02/199	8	10/01/2000	Secret files	- <b></b>	98/2332
 	15		EXP-12233		IRON AND STEEL	1	27/02/199	8	13/04/2000	Export Items	- <b></b>	98/0743