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ACCOUNTING INFORMATION SUPPORT SYSTEM WITH PARTICULAR REFERENCE TO AGENCY FOR THE ADMINISTRATION OF RENTED HOUSES

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Accounting Information Support System with Particular Reference to Agency for The Administration of Rented Houses (A.A.R.H)

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TABLE OF CONTENTS

DECLARATION i
DEDICATION ii
ACKNOWLEDGEMENT iii
ABSTRACT iv
CHAPTER 1
INTRODUCTION 1
1.1 BACKGROUND 1
1.2 STATEMENT OF PROBLEM AND JUSTIFICATION 2
1.3 OBJECTIVES OF THE STUDY 3
1.3.1 General Objectives 3
1.3.2 Specific Objectives 4
1.4 SCOPE AND LIMITATIONS OF THE STUDY 4
1.5 METHODOLOGY 5
1.5.1 Data Collection 5
1.5.1.1 Interview Method 5
1.5.1.2 Observation 6
1.5.1.3 Literature Survey 6
1.5.1.4 Prototype Database 6
1.5.2 Sources of Data 6
1.6 APPLICATION OF RESULTS 7
CHAPTER 2
BASIC ACCOUNTING SYSTEMS CONCEPTS 9
2.1 AN OVERVIEW 9
2.1.1 Accounting Concept 9
2.1.2 Accounting Information System 10
2.2 ORGANIZATION, DECISIONS AND INFORMATION 11
2.2.1 Accounting Information System and Organization 11
2.2.2 Information and Decisions 12
2.2.3 The Role Of Accounting Information In Decision Making 15
2.3 FINANCIAL CONTROLS 16
2.3.1 Goal Setting And Planning 16
2.3.2 The Importance Of Controlling 17
2.3.3 Performance Reports 19
2.4 ACCOUNTING SYSTEM 19
2.4.1 Generally Accepted Accounting Principles . 19
2.4.2 Operations In An Accounting System 21
2.4.3 Tools To Implement Accounting System . . . 21

2.4.3.1 Chart Of Accounts 22
2.4.3.2 Account Coding 22
2.5 MANAGEMENT INFORMATION SYSTEMS AND ITS IMPACT ON AIS 23
2.5.1 Management Information System 23
2.5.2 Impact On Accounting Activities 23
CHAPTER 3
THE ACCOUNTING SYSTEM IN A.A.R.H. 25
3.1 THE CLASSIFICATION OF ACCOUNTS CODE 25
3.1.1 Major Classification 25
3.2 CHART OF ACCOUNTS 25
3.3 DESCRIPTION OF THE CODES OF ACCOUNTS AND PROCEDURES IN HANDLING THE ACCOUNTING TRANSACTIONS 26
3.4 INTERNAL ACCOUNTING 55
3.4.1 Costing 55
3.4.1.1 Construct Works 56
3.4.1.1.1 Recording The Cost Of Contract Works 58
3.4.1.2 Own Works 59
3.4.1.2.1 Recording The Cost Of Own Works 61
3.4.1.3 Material Production 62
3.4.2 Budget 62
3.5 TRANSACTION PROCESSING 63
3.5.1 Components Of The Transaction Processing System 63
3.5.1.1 Inputs 63
3.5.1.2 Processing 64
3.5.1.3 Storage 64
3.5.1.4 Outputs 65
CHAPTER 4
PROPOSED DESIGN OF ACCOUNTING INFORMATION SYSTEM FOR A.A.R.H. 66
4.1 EVALUATION OF THE EXISTING ACCOUNTING SYSTEM . . 66
4.1.1 Weaknesses Of The System 66
4.2 GENERAL DESIGN 68
4.2.1 Databases Of The Accounting System 68
4.2.2 Designing User Interface Devices 69
4.2.3 Recommended Computer System 70
4.3 DATABASE DESIGN 71

4.3.1 General Overview 71
4.3.2 Detailed Database Structure 72
4.3.2.1 Data Dictionary 72
4.3.2.2 Files Designed For The Propose System 74
4.4 REPORT DESIGN 77
4.5 DESIGN OF USER INTERFACE 78
CHAPTER 5
SYSTEMS OPERATION AND PLAN FOR IMPLEMENTATION 80
5.1 INTRODUCTION 80
5.2 PHYSICAL DESIGN OF DATABASE AND USER INTERFACE . 80
5.2.1 Detail Database Design 80
5.2.1.1 Description Of The Database . . . 81
5.2.2 Design By Forms 82
5.2.2.1 Input Forms 83
5.2.2.2 Output Forms 86
5.2.3 Procedures And Functions Of Using The Proposed Forms 91
5.2.3.1 Users Group 91
5.2.3.2 Procedures Showing How To Use The Proposed System 91
5.3 DEMONSTRATION 94
5.4 HARDWARE AND SOFTWARE REQUIREMENT 104
5.5 SYSTEMS IMPLEMENTATION PLAN 107
5.5.1 Establishment Of Plans And Controls . . . 107
5.5.2 Execution Of Implementation Activities . . 107
5.5.2.1 Employee Training 108
CHAPTER 6
CONCLUSION AND RECOMMENDATIONS 111
6.1 CONCLUSION 111
6.2 RECOMMENDATIONS 114
BIBLIOGRAPHY 118
APPENDIX 1 Organizational Structure Of A.A.R.H. 120
APPENDIX 2 Chart Of Accounts 121
APPENDIX 3 Source Document /Input Forms 135
APPENDIX 4 Source Codes Using dBASE IV Language 139

DEDICATION

To my wife Alemaddis Asfaw and Son Michael Tessema

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ABSTRACT

The management process can be defined as the process of planning, organizing, staffing and controlling. The performance of a business can be measured on how well these functions are being carried out. The main thing to be made is that better quality information which helps management in the process of managing a business. Accounting information, in this regard, plays a great role in:

1) Planning, because reporting information on past periods helps the user to make predictions about future events.

2) Controlling, because budgets and standards are set, and performances are measured against these budgets and standards.

3) Decision making, because the reporting of possible outcomes based on alternative input allows the decision makers to select the best alternatives.

The accounting function also acts as an over all control device for external constituents such as external auditors, Inland Revenue Administration and Other Government bodies.

The result of the study reveals that accounting system of A.A.R.H. currently used is not capable of supporting the management in relation to investment and economic policy.

Therefore, this thesis aims to furnish in prototype computer based accounting information to different level of

managers and to interested external users.

The proposed computer-based accounting system for the accounting information system of A.A.R.H. emanates from the fact that:

a) The existing semi-automated accounting system of A.A.R.H. has not been presented in a suitable form to help management.

b) The traditional batch oriented processing of accounting creates a delay to provide timely information.

Thus, using the database approach attempts have been made to design prototype accounting information system to be suitable for management in a timely fashion.

The thesis holds six chapters, the Introduction part, Accounting Concept, the Existing Accounting System of A.A.R.H., the Proposed Accounting System, System Operation and Implementation Plan and lastly Conclusion and Recommendations.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Agency for the Administration of Rented Houses in Ethiopia came into being in 1975 under the proclamation number 59/75 for carrying out the following major activities.

* To make and maintain all urban houses acquired in any manner by the government.

* To study housing schedule which conforms to standard of living of people.

* To sell or exchange house under its control and to buy, build, maintain, and lease houses that may be necessary in accordance with government policy.

The Agency is managed by a General manager who is the chief executive under the Prime Minister's Office. It is a state owned agency, which has administrative and financial autonomy. The Agency has 4100 employees at present. The estimated cost of all fixed assets under its possession is over a billion birr. Out of the estimated cost, 80% of the fixed assets are not revalued and incorporated in the accounts. Gross revenue generated from rent and other collection stood to the tune of 100 million birr annually. [The reports of finance department, 1994.]

1.2. STATEMENT OF PROBLEM AND JUSTIFICATION

Accounting is a collection of principles and rules that govern the transformation of data into the information used in management processes. Information is data made meaningful. The transformation is accomplished by a system consisting of people, machines, and methods. These components are organized so as to accomplish a set of specific functions. Their value lies in linking the diverse parts of an organization so that it can function as a coordinated entity. Accounting information system exemplifies the saying that the whole is often greater than the sum of its parts. The accounting application themselves are integrated and use data base principles in their design; here particular emphasis is placed on the transaction processing aspects of computer based accounting information systems.

Accounting systems deliver financial and managerial information, prepared in a known way about revenues, expenses, assets, liabilities, and equity. They do so through coordinated operation, using human judgement, software instructions, and computer speed and accuracy.

Accounting system exists wherever there is an economic activity. Managers use the consistent and reliable information that an accounting system provides.

Accounting information also serves as a continuous historical record, showing the results of past, plans and activities so that they can be evaluated and perpetuated or

changed. Finally, because an organization's accounting system reflects the unique structure and needs of that particular organization, the system is sometimes said to be a model of that organization.

Due to the lack of proper accounting information, the Agency for the Administration of Rented Houses (A.A.R.H) faced the following problems:

* Increasing of rent receivable accounts from time to time;
* Financial statements of the Agency is far behind the current information;
* The Accounting information is not capable of supporting the managers of the agency for proper decision making.

Therefore, it is the aim of this study project to design a prototype database in order to show how the system can support the management of the Agency in respect of any investment and other financial decision making process.

The newly proposed information support system, after further investigation , can also be a model for other similar organizations.

1.3 OBJECTIVES OF THE STUDY

1.3.1 General Objective

The general objective of this thesis is to design an accounting information system which will monitor the

dimension of economic activity in the Agency by processing accounting data. It is also to know rules and delivering precise information that is useful to those who plan and manage the Agency's activities as well as to interested outsiders.

1.3.2 Specific Objectives

In order to achieve the general objective, stated above, this research aims to achieve the following specific objectives:

1. To identify the potential users of the Agency's accounting information system;
2. To identify existing accounting information system, sources and services to support management of the Agency;
3. To identify the existing major problems in handling accounting information of the Agency;
4. To design and develop the system including the subsystem accounting information of the Agency;
5. To design database(s) for the Prototype of the total accounting information system.
6. To demonstrate the functions of the proposed designed system to the potential users.

1.4. SCOPE AND LIMITATIONS OF THE STUDY

Like any other system, the Accounting information service system is also made up of input-process-output and with resultant feed-back. The scope of the study is confined the assessment of the existing service and users in the Agency

for the Administration of Rented Houses and to designing the prototype database for the proposed system and sub systems. It doesn't go to the implementation stage of all the detailed entities. However , the plan for implementation has been made when and how the system will be started.

1.5. METHODOLOGY

In order to achieve the objectives stated under section 1.3,interview,observation and literature survey have been used.A prototype database on accounting information has also been developed by the researcher.

1.5.1 Data Collection

1.5.1.1 Interview Method

The interview method has been used to obtain relevant data from General Manager, Finance Manager,Head of audit service,Chief Accountant,Senior Accountants & Accountants of A.A.R.H.

The following are checklist of questions were used to obtain data for the study.Some items of data have been obtained directly from the accounting manual of the Agency and got confirmed by the chief accountant.

a) Means of obtaining accounting information;

b) Problems faced by the Agency to process and produce accounting information

c) What do the interviewee feels it to be the major hindrance to get the required accounting information timely and accurately.

d) Any other information that the interviewee is in

the position to contribute to the development of accounting information system of A.A.R.H.

1.5.1.2 Observation

As far as the researcher of this thesis is the staff of the Agency,observation was the main way of gathering the necessary data.

1.5.1.3. Literature Survey

Published materials have been searched in the university libraries,Ethiopian Science & Technology Commission's library,A.A.R.H.'s library and individuals.The literature survey is used to obtain experiences on accounting information system and a concept in order to help the researcher to build or design the accounting information system for A.A.R.H. The literature survey is on chapter 2.

1.5.1.4 Prototype Database

Prototype database that would facilitate the provision of accounting information support system to A.A.R.H. has been developed using dBASE IV software.The databases are discussed in chapters 4 & 5.

1.5.2 Sources of Data

The following were the sources used for collection of data;

1. Staff in finance department and audit service who are directly involved in

accounting and related work;

2. Some professionals in the field of accountancy engaged in other organizations;

3. Existing accounting manuals and documents in the Agency;

4. Books and publications on Accounting & data processing;
5. The top level and middle - level managers of the Agency.

1.6. APPLICATION OF RESULTS

The intention of this study is to develop a prototype accounting information system for the Agency for the Administration of Rented Houses. From this study, the researcher identifies the primary users of the system, the objective of the system, the boundaries of the system and the information requirements.

The result of this study can also serve as a key factor for developing well organized accounting information system for the Agency. The result of the study can also be considered as a model for other organizations with some modifications or alterations.

The beneficiary of the study would be the different level of managers in the Agency, outsiders (such as Inland Revenue Administration, External Auditor, etc.); other business organizations engaged in renting houses can also use the system.

CHAPTER 2

BASIC ACCOUNTING SYSTEMS CONCEPT

2.1 AN OVERVIEW

2.1.1 Accounting Concept

Accounting has evolved, as have medicine, law, and most other fields of human activity, in response to the social and economic needs of society. As business and society have become more complex over the years, accounting has developed new concepts and techniques to meet the ever increasing need for financial information without such information; many complex economic development and social programs might never have been undertaken.

Accounting has been defined broadly as:-

"... the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users of the information".(Evanston,1966)

Accounting is often called " the language of business". The acceleration of change in our society has contributed to increasing complexities in these " language" which is used in recording, summarizing, reporting, and interpreting basic economic data for individuals, businesses, governments and other entities. Sound decisions, based on reliable information are essential for the efficient distribution and use of the nation's scarce resources. Accounting , therefore plays an important role in our economic and social system.

2.1.2 Accounting Information System.

Modern business organizations depend on information systems in order to stay competitive. Information is just as much a resource as plant and equipment, but while other resources cost more all the time, the cost of information technology (i.e Computer technology) continues to drop. Productivity, which is crucial to staying competitive, can be increased through better information system. Accounting, as an information system, identifies, collects, processes and communicates economic information about an entity to wide variety of people. Information is useful data, organized such that correct decisions can be based on it. A system is a collection of resources related such that certain objectives can be achieved.

" An accounting information system (AIS) is a collection of resources, such as people and equipment, designed to transform financial data into information. This information is communicated to a wide variety of decision makers. Accounting information systems perform this transformation whether they are essentially manual system or thoroughly computerized" (Summers, 1989)

Data is useful only if it satisfies a need, which implies that an AIS has utility only if it satisfying users need. Such needs may be personal, such as the necessity to keep one's own checkbook in balance; or they may be organizational, as in the general need for a business to periodically assess the profitability of its activities. This thesis focus on the AIS as it relates to organizations.

2.2. Organization, Decisions and Information

2.2.1 Accounting Information system and organization

An AIS is a viable system that fulfills the needs of its users for information. The purpose of an AIS is to provide accounting data to a variety of decision makers according to their needs and entitlement to the information.

An organization is a collection of decision making units that exists to pursue objectives. As a system, every organization accepts inputs and transforms them into outputs that take the form of products and services. A manufacturing firm transforms raw material, labor, and other scarce resource inputs into tangible items, such as furniture, that subsequently sold in pursuit of the goal of profit.

The users of accounting data fall into two broad groups: external and internal. External users include stockholders, investors, creditors, governmental agencies, customers and vendors, competitors, labor unions, and the public at large.

External users receive and depend on a variety of output from an organization's AIS. Many of these output are of a routine nature. Accounts payable transactions with suppliers, for example, require outputs such as purchase orders and checks from an organization's AIS. Customers receive bills and make payments, which are processed by the AIS. Employees receive paychecks and other payroll-related data, stockholders receive dividend checks and routine information concerning stock transactions.

The information needs of external users are varied. The publication of general-purpose financial statements, such as balance sheets and income statements, and other non routine

outputs assist in meeting these needs. Stockholders, investors at large, creditors, and other external users utilized a firm's general-purpose financial statements to evaluate past performance predict future performance, and gain other insights into an organization.

Internal users comprise managers, whose requirements depend on their level in an organization or on the particular function they perform. There are different information needs and demands at different levels in an organization. For example, top management is generally concerned with long-run strategic planning and control. Accounting reports to top management consist largely of aggregated and summarized items such as a total sales. Lower-level managers receive information relevant their particular subunit, such as the total sales of department. A personnel in the lower level of an organization, such as clerks processing payroll or sales transaction data, constantly interact with the detailed transaction itself.

2.2.2 Information And Decisions

A decision is a choice between alternatives. In a decision , a fact qualifies as information if awareness of it could change a manager's preferences among alternatives. Information systems are designed and operated to produce messages that may prompt their recipient to make, or at least to consider, different choices. Accounting systems produce financial-information messages--records of activity, statements of expectations, and measures of performance that encourage executive commitment to one of several

alternatives.

A vital role of the AIS is to supply internal decision makers with information that is relevant to their needs. An organization is held together by its information network the acquisition, use, retention, and transmission of information. One of the primary network members in an organization is its AIS.

The AIS summarizes and filters the data available to decision makers. By processing the data, the AIS influences organizational decisions,. The extent of influence depends on the type of processing the AIS performs. The source is the organizational environment from which data is collected by the AIS. This data is used to make inferences concerning decisions. Values are used to make a choice among alternative course of action. Action and outcome follow the actual decision. The four classification---data bank, predictive, decision making, and decision taking--- are based on the number of steps the AIS rather than a human decision maker performs. The more steps performed by the AIS, the more assumptions built into the system and the greater the system's influence on organizational decision making.

In a data bank system the AIS collects data from the source. Important assumptions concerning what phenomena or events should be measured are contained in the AIS, but all interferences are drawn by the user. Data is collected,processed, and made available to decision makers upon request, but the AIS does not itself determine the importance of data or put the data into a decision-oriented format. These tasks are the responsibility of the decision

maker.

In a predicative system that AIS does process data into a decision-oriented format and provides this processed data to the decision maker, who uses her or his values to complete the decision process. Common examples are financial planning (e.g Lotus 1-2-3) and simulation models. Such models have become common place on microcomputer systems due to the ease of construction and use that it is provided by electronic spreadsheet software. In a predictive system,the user inputs data to the system to be analyzed and receives a report based on the data. Important assumptions about cause and effect relationships are communicated to users, and these inferences give direction to the user in a way raw data can not.

In a decision-making system values and choice are also built into the AIS. A human decision maker has" veto power" over the course of action recommended by the AIS. The basic feature of such systems is that more assumptions about value and choice are included. For example, to use linear programming in production scheduling, it is necessary to construct an objective function to minimize cost or maximize profit. The cost or profit computation must be explicitly defined in order that it may be optimized. To the extent that operational definitions of such decision criteria are mutually agreed to by parties to the decision process, decision-making systems are appropriate. To the extent that there is disagreement over decision criteria (values), such systems are inappropriate.

A decision-taking system both makes the decision and implements a course of action. The system doesn't present its

maker.

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A decision-taking system both makes the decision and implements a course of action. The system doesn't present its

choice to a human decision maker for review; rather, the system directly implements a course of actions. Examples of such systems include automatic elevator systems and automatic bank teller systems in which a decision to serve or refuse to serve a customer is based on an automated credit analysis. Decision-taking, decision making, and predictive AISs have been made practical by computer technology, and one can expect that more and more decision-taking systems will be found in AISs. Such systems require many built-in assumptions concerning values, decision criteria, and cause and effect relationships that should be recognized by the humans who use or rely on such systems.

2.2.3 The Role of Accounting Information in Decision Making

The role of accounting information, as well as other types of information, is to increase knowledge or reduce risk. Unlike subjective information, accounting information is quantitative, verifiable information that is very effective in aiding decision makers. For example, a supervisor with 20 years of experience is of the option that assembly line productivity has declined over the last year. Although he may be right, much more useful information is obtained from an accounting report that the documents an 8 percent decline in production efficiency, with a resulting increase in product cost of $0.30 a unit and a decreases in annual profits of $60,000. As a result, managers frequently assign weight to accounting information even when it is supplemented with more subjective data.

The demand for accounting information has grown significantly over the last decade. An important reason has been the declining cost of computer equipment and the increased use of more sophisticated management planning and decision methods. Managers are demanding more detailed accounting data than ever before. The increase in demand for information in general has mushroomed in all organization; the pressure for more accounting information in particular comes from managers' desire to satisfy both internal information needs and the needs of external information users, especially government.

2.3 FINANCIAL CONTROLS

2.3.1 Goal Setting and Planning

Every Organization's leaders face a continuing challenge of goal setting--identifying goals and objectives that will sustain the organization's existence and bring it growth, profit and resources without taking unnecessary chance. As part of the planning process, organizations should define what they want to achieve and how they want to achieve it. The budget is a plan of progress toward these goals, showing how the organization will use it financial and other resources to achieve short-term objectives in the course of its operations over a defined period, usually one year.

The goals of the organization as a whole are the consolidated product of the goals of its various divisions, which in turn are the product of the down to the level of the smallest units. Management can take advantage of this

structure to arrange goals according to the organizational unit to which they belong.

At higher management levels, the goals are aggregated from the goals of units at lower levels.

Goal setting leads to planning, which is the systematic anticipation and description of the activities that will lead to goal achievement. Executives may engage experts--Economists, Forecasters, Statisticians, Consultants, and others and set aside special time for retreats or regular meetings in order to develop acceptable plans. These plans specify the short-term objectives, or milestones, that will mark progress toward long-term goals.

2.3.2 The Importance of Controlling

Success will depend on controls, As a financial control, the budget serves the following functions.

a) It forces management to describe for the budget period its fundamental plans and policies concerning Human resources, products, capacities, cash flow, and other resources.

b) It describes, in accounting-statement format, the expected results of operations. It predicts what the financial statements will show at the end of the period if operations proceed smoothly and achieve their objectives.

c) It enables management to make frequent comparisons of its expectations with the results of actual operations. It compares operating objectives with achievements.

To implement the budget as a control, an organization must regard every component of the budget process as a control element and assign specific responsibility for it to some part of management.

As a control device, the budget process is the framework in which management can include the four elements of control.

* Objectives:- Anticipate which operations or actions to perform.
* Preventive:- Asses whether ongoing operations are producing satisfactory performance.
* Feed back:- determine whether changes are necessary to restore satisfactory performance.
* Comparison and follow-up:- determine when actual performance equals or even surpass the performance projected in the budget.

These elements and their inclusion in the budget process are the keys to controlling the direction of the enterprise. They give management the freedom to plan and even to improvise and innovate within a clearly understood and accepted framework of goals and constraints. Goals and constraints exist in every organization. In the most centralized organizations, the goals and constraints tend to be very limiting in decentralized organizations, they are less limiting but still present.

2.3.3 Performance Reports

Performance reports are statements for internal use within a business; they compare expected and actual results of operations (outputs and resources used) for all or part of an organization. Because performance reports incorporate the budget as the source of expected results, they are effective only to the extent that the budget is based on realistic plans and policies and contains achievable goals. When the expected results in such a budget are combined with the actual results reported by the accounting system and included in performance reports, they give managers information they can use to appraise and modify their own performance independent of formal review by top management.

2.4 ACCOUNTING SYSTEM

2.4.1 Generally Accepted Accounting Principles.

An accounting system is a set of elements goals, policies, accounting principles, equipment, personnel, inputs and outputs, and controls--that can jointly perform accounting functions.

For an accounting system to fulfil its purpose, the information in accounting reports must be relevant, complete and timely. These attributes are achieved by recording, processing, summarizing, and reporting the monetary and other measures of a transaction according to generally accepted accounting principles (GAAP). Accounting uses the simple, powerful device of double entry to record money measures of

a transaction in at least two accounts, the set of classifications in which these records are maintained. The number and type of accounts used must follow a few basic rules that are spelled out in GAAP.

Within the rules of GAAP, accounts and reports may be selected and related to fit a particular organization's requirements. GAAP are determined by a process for which the Securities and Exchange Commission (SEC), a federal agency of U.S.A, is responsible of the many elements that contribute to general acceptance of accounting principle, the most important are its widespread use and approval,empirical evidence that users of accounting reports understand it, endorsement by the Financial Accounting Standards Board and approval by other government agencies; including the Internal Revenue Service and the court system, for use in accounting reports supplied to them.

Generally accepted accounting principles are only useful when applied to transaction data that have been recorded accurately, completely, and in a timely fashion. Ensuring that data have these attributes in a major mission of accounting systems. It is crucial to this purpose that the accounting model be used consistently. For this reason, management imposes strict procedures and tests to be used in accounting systems, including constant monitoring of accounting processing and reporting.

2.4.2 Operations in an Accounting System

Accounting systems rely on operations that include data collection, entry of transactions, transaction analysis and authorization, preparing journals, posting to ledgers and balancing control accounts, summarizing accounting data, making adjustments to the summarized data, and preparing accounting statements.

All organizations require accounting information to manage daily operations, plan future operations, and evaluate past performance. In addition, most organizations must provide external financial information to taxing authorities, shareholders, regulatory agencies, labor unions, and other special interest groups. "Financial accounting is concerned with providing information to external users. The accounting process that provides information primarily for internal use is called **managerial accounting**" (Heitger,1985). Attempts have been made to develop both financial accounting and managerial accounting for accounting information system of A.A.R.H.

2.4.3 Tools to Implement Accounting Systems.

As far as an accounting system is concerned, business activity consists of individual transactions. The attributes of these transactions need to be properly recorded, processed, and reported as we have seen, to be meaningful. In terms of accounting system, then, the data consists of

unprocessed details of transactions, and the information is the output reports and summaries relevant to specific purposes.

An accounting system's most important feature is the classification or accounts, it contains, Reports consists of the titles of certain accounts and their balances. The more accounts there are, the more detailed the reports can be. But since excessive detail can be as harmful to decision making and control as too little detail, the accounts in the system must be no more numerous than necessary to provide enough detail for operational control and reporting.

2.4.3.1 Chart of Accounts

To implement accounting procedures and maintain an accounting system,organizations adopt a chart of accounts, a diagram or list showing the relationships of all of accounts in the accounting system and usually indicating the structure by which detailed accounts are summarized in the general ledger or trial balance by control accounts.

The organization should prepare the chart of accounts before the accounting system begins operations.

2.4.3.2 Account Coding

A code is an identifying number of designation for an account. An account's properties are type determine the fashion in which codes are assigned. In any automated accounting system, though, the account names should be

supplemented by a classification code based on numbers or letters. The code should indicate whether its account belongs to control account or an account in subledger. If the account belongs to a subledger, the code should indicate the subledger containing the account.

2.5 MANAGEMENT INFORMATION SYSTEMS AND ITS IMPACT ON AIS.

2.5.1 Management Information Systems

A management Information system (MIS) is a total information system, providing a wide variety of information beyond that which has historically been associated with the accounting information system. Most MISs have several subsystems, of which the AIS is generally the largest and most formalized. Other subsystems provide information for making activities, personnel applications, and data base management. A common marketing application, for example, of an MIS subsystem is the use of computerized system to keep track of inventories and forecast consumer demand. The point to remember is that an MIS can process not only transactional or financial data, but many other types as well.

2.5.2 Impact on Accounting Activities

From an accounting perspective, the concept of an MIS embraces managerial accounting and management science concepts and techniques. Management accounting is loosely associated with the internal accounting function, but conceptually management accounting theory represents a shift toward decision-oriented accounting data that is tailored to

a specific purpose.

The computer-based and decision-oriented features of the MIS concept were emphasized in the belief that these features have the most bearing upon the study of AIS. A collection of large computerized transaction applications is frequently termed as an MIS, but the concept of an MIS connotes more than reasonably efficient data processing, however, computerized data processing is implied by most MIS definitions, and computerization of transactional information provides a direct link between the MIS concept and the AIS. The increased volume of data and the variety of alternatives available with current technology are increasing for accountants to consider explicitly the value of information provided to users of an AIS.

CHAPTER 3

THE ACCOUNTING SYSTEM IN A.A.R.H

3.1 THE CLASSIFICATION OF ACCOUNTS CODE

3.1.1 Major Classification

The major classification of the code of accounts are: Assets (1000), Liabilities (2000), Capital (3000), Revenue (4000), direct expenses (5000), and general & Administrative expense (6000)

Assets:- It refer to the properties owned by A.A.R.H

Liabilities:- The Equalities of creditors represent debts of the A.A.R.H when we say equity, we mean that the rights or claims to the properties.

Capital - The equity of the owners (A.A.R.H)

Revenue:- The amount charged to customers for services sold or rented to them.

Expenses:- The amount of assets consumed or service used in the process of earning revenue.

3.2 CHART OF ACCOUNTS

As described in earlier chapter, chart of accounts is one of the major tools to implement accounting procedures and maintain an accounting system.

The chart of accounts is used to achieve an organization's objectives for financial reporting and control. The accounts in the general ledger provide a separate record for each of

the company's assets, liabilities, capital fund balance, revenues, and expenses in which all transactions pertaining to that account are recorded.

Hence, A.A.R.H is currently using the following chart of accounts which indicates the structure by which details accounts are summarized in the general ledger or trial balance by control accounts. (The chart is presented in appendix 2)

3.3 DESCRIPTION OF THE CODES OF ACCOUNTS AND PROCEDURES IN HANDLING THE ACCOUNTING TRANSACTIONS.

1. CASH AT BANK (1110)

Cash at bank includes all cash balances, both depositing and operating accounts, in each bank account opened in the name of A.A.R.H

All cash collections made against issuance of pre-numbered cash receipts are deposited to depositing accounts intact daily, and the amount so deposited is transferred to the main operating account leaving a fixed amount of birr 100.00 as per standing instruction given by the General Manager of the Agency.

Cash Collections

Since the exercise of effective control over the printing & handling of cash receipt vouchers is required, unused cash receipts of A.A.R.H are maintained centrally by the Revenue and Disbursement Division and be kept in safe custody.

Receipt control cards are maintained in which is recorded, receipts printed, issued , and pads in stock.

Limited pads of receipt vouchers must be issued to accounts representatives of collecting offices (Zones or Departments(s)) Accounts representative of the collecting office will issue only one pad of receipt vouchers form each type of receipts to one cash collector at a time.
All collections are made against the issuance of pre-numbered receipt vouchers prepared in Triplicate and the distribution is:

* Original-- To the payer
* First copy-- To accounts
* Second copy-- Remains in pad

The cash collector, after summarizing and totaling daily collection, will prepare the appropriate cash deposit slip, and deposit the fund to the bank account opened in the name of the Agency for the Administration of Rented Houses.
Cash received must be deposited to the bank intact daily, the making of any payment out of cash collection being expressly forbidden. The Collection summary along with deposit slips and accounts copy of receipt vouchers (and supporting documents, if any) is submitted to accounts representative or Revenue unit. This has been done manually.

After verifying the accuracy of the summary and corresponding source documents, ascertaining that proper recording in collection register is performed, and ensuring that correct posting to individual tenants ledger is made,

the accounts representative and/or the Revenue Unit head signs the summary and pass it to the General Accounts for recording. The General Accounts section checks the summary and will take accounting action as shown below:

Cash at bank (As per deposit slip) is debited

Rent receivable (As appropriate) is credited

Other income (As appropriate) is credited

Debtors (As appropriate) is credited

When the bank balance of depositing accounts is transferred to the main operating account of the agency as per standing instruction, the entry to be passed is;

operating account (Main)is debited and

appropriate deposit account is credited.

Cash Payments

All disbursements above birr 300.00 are made by cheque or transfer letter, therefore, effective control must be exercised over unused cheque books.

New cheque books received form the bank are checked for completeness; maintained by Disbursement Unit Head, and kept in safe custody. Unused cheque book control card are maintained by the Disbursement Unit Leader, and serial numbers of unused cheque books are recorded. Only one cheque book at a time should be issued to the accountant or disbursement clerk responsible for cheque preparation against return of completed cheque book stub, which should be reviewed by the Disbursement Unit leader or Revenue and Disbursement Division head.

All payments above birr 300.00 must be made by cheque or transfer letter. Cheque may only be prepared against documents approved for payment or on the written instruction of Revenue and Disbursement Division Head (as per delegation) Finance Manager or the General Manager. Cheque payments must be evidenced by pre-numbered cheque payment Vouchers. These vouchers must be prepared in duplicate, supported by relevant documents. However, when supporting documents are already attached to other accounting records, the reference number of such records should be written on the voucher. Cheque payment vouchers must be signed by the preparer, who should enter the accounts code, signed by Senior Accountant or Disbursement Unit Head for checking correctness of documents and coding, and signed by the cheque signatories who would also initial the supporting documents. The vouchers and supporting documents should be stamped "PAID" and the cheque number and date inserted by the preparer of the cheque before signature of cheque. Cheque book stubs should be completed with payee's name, amount, payment voucher number and date. Cheque is prepared in the name of the payee only and must be signed by at least two authorized signatories. Splitting of a single payment and writing more than one (Several) cheque being strictly forbidden, any cheque up to Birr 200,000.00 is signed jointly by Revenue and Disbursement Division Head and the Finance Manager. Cheque payments must be recorded in the cheque payment register daily. Cheque and cheque payment Vouchers, which must be pre-numbered should be used in sequential number order, void cheque being kept pinned to the cheque

stub. Authority for the opening or closing of Bank Accounts, appointment or removal of signatory status is vested to the General Manager and/or supervising Authority.

The entry to record cheque payments is:

Appropriate Account will be debited and

Appropriate operating bank account will be credited

At the end of each month, the ending cash balance reported in the bank statement should be reconciled with the ending cash balance as reflected in the cash ledger of the agency.

2. Cash On Hand (1120)

Cash on hand consists of currency and cheque on hand, with collectors, collected on behalf of A.A.R.H and yet not deposited at bank, if any. Since all collections are deposited to the bank intact daily, it is rarely that the account, cash on hand is recorded. When some times, the total cash collection differs from what actually is deposited to bank or when the collectors delays depositing, cash on hand account may be affected. When the actual deposit is less than what is collected (which requires immediate reporting and corrective action) the entry to be passed is:

Cash on hand is debited and

Appropriate account is credited

When the actual deposit is more than what is collected (which needs detail checking) cash on hand account in the names of collector concerned will be credited.

3. Patty cash Fund (1130)

Petty cash fund is established to effect small and recurring cash payments. The fund is maintained on the basis of imprest system where by the petty cashier is advanced a float of fixed amount which will always be represented by cash or vouchers.

The petty cash fund, the amount of float being reasonable in relation to requirement, is established by issuance of a cheque in the name of the petty cash holder, at the beginning of the budget year or at the time petty cash fund creation is authorized. The entry to be passed at establishment is:

Petty cash fund (in the name of custodian) will be debited and
Cash at bank (appropriate bank ACCT.) will be credited
Only payment of up to birr 300.00 should be made from petty cash.

There should always be inciting documents for the preparation of petty cash payment voucher, which must be authorized by Revenue & Disbursement Division Head or by Zone (Branch) manager or other delegated persons. Payment from petty cash (authorized by responsible official) should be recorded on pre-numbered petty cash payment vouchers in two copies and petty cash payment vouchers and supporting documents must be stamped" PAID" at the time of payment. The petty cashier must record payments daily(the petty cash voucher should be coded by the accountant or disbursement clerk, at the time

of preparation) in numerical sequence on a petty cash register in two copies. When the petty cash on hand balance is reduced to about 25% of the float total, the petty cashier, after totaling the petty cash register, and checking for accuracy forwards the petty cash register together with original petty cash payment voucher and supporting documents to the Disbursement Unit, the first copy remains in pad. The disbursement Unit, after checking the accuracy of petty cash register, petty cash payment vouchers, and supporting documents prepares cheque for the total expended amount in the name of the petty cashier. All petty cash payment vouchers and supporting documents together with petty cash register for which cheque is prepared must be stamped " REPLENISHED" and referenced to the cheque number and date by which replenishment effected. After the cheque is prepared and signed by authorized signatories the cheque is handed over to the petty cash custodian against his signature on the cheque payment voucher.

Payment vouchers, supporting documents, and the register will be forwarded to general Accounts and the following entry will be passed.

Appropriate Account will be debited

Cash at Bank (Appropriate operating account) will be credited please note that Under the imprest system petty cash will be credited only when reduced or closed.

At the close of the budget year the petty cash fund will be closed which will be established at the beginning of the

incoming budget year. Creation, reduction or close of petty cash fund is authorized by the General Manager.

4. PAYROLL FUND (1140)

This fund is used for the payment of salaries and wages on a monthly basis. Salary and wage payments are normally made by cheque drawn in the name of the paymaster. After the cheque is prepared and authorized and the paymaster has cashed the cheque ensuring that the cash he collects from the bank is in the right denomination, payment of salary and wage will be effected on the basis of authorized and approved payroll, against signature by the employees concerned in the space provided. Salaries and wages not claimed with in five days from the effective pay-day must be deposited to the bank and may be paid latter upon written request.

The accounting entry required in respect of salaries and wages is as follows:

To record the drawing of the cheque by the paymaster.

Payroll fund- for the total of net pay drawn will be debited and

Cash at bank - appropriate operating account will be credited.

Upon receipt of the payroll lists signed by employees shown in the payroll and deposit slip for unclaimed salaries

and wages, if any, the following entry will be passed.

Salaries or wages (Whichever is appropriate) debit

Cash (For unclaimed salary or wage so deposited) credit

Payroll fund credit

Staff debtors credit

Statutory deductions credit

Unclaimed salaries and wages credit

5. Letter of Credit 1200

Any payment made to foreign supplier through a bank for purchase of goods is charged to this account. The entry will be:

Letter of credit ..... Debit

Cash at bank ..... Credit

This charge is later cleared by a debit to goods in transit upon receiving the necessary shipping documents and suppliers invoice certified by bank. The goods in transit account upon receipt of the goods and issuance of goods receiving report is cleared by debiting inventory and crediting goods in-transit account.

6.Marketable Security (1300)

When there exists cash in excess of the organization current needs such idle cash may be put into productive use in the form of marketable securities, which are in effect

near-cash.

Marketable securities could be, treasury bills, deposit certificates of time deposits, shares of capital stock of other companies etc.

7.Receivable (1400)

Receivable which constitute the major current asset of the agency needs tight receivable management control system and follow up.

House Rent Receivable (1410)

The Prime objective of A.A.R.H being maintaining and renting houses, and collecting the rent so due, its major revenue and receivable is house rent revenue and house rent receivable respectively.

For most tenants are not paying rent as due, there always, exists significant amount of outstanding rent receivable; Therefore, tight internal control system must be exercised over house rent receivable management and house rent collection.

At the beginning of each budget year house rent receivable subsidiary ledger (tenants subsidiary ledger) must be opened for each individual tenant, by recording the amount brought forward from the previous budget years, if any;
Tenants ledger must be pre-numbered, indexed in the order of

the location number(numbering machine could be used to number the ledgers). Tenants subsidiary ledger must be agreed with what was reported as outstanding receivable of the budget year then ended. In each month, the individual tenants account must be debited for the rent so due. List of tenants (houses rent receivable) must be maintained centrally by the revenue unit (receivables management), must be updated monthly and be prepared sequentially by index number and location using computer for control purpose, list of house rent receivable so prepared will be summarized by the total of rent due from each woreda which is used for financial accounting purpose. House rent collection is made against pre-numbered rent receipt voucher (rent receipt voucher being different from other receipt vouchers with its own sequence number). Rent collection are recorded in collection register daily. Posting to the individual tenants ledger are made from the accounts copy of rent receipt vouchers daily with out fail Manually. The index number of the tenant ledger to which the collection is posted are recorded on the rent receipt voucher, and the receipt voucher must be initialed by the accounts clerk who made the posting. The posting as evidenced by the index number and initial, are checked for accuracy. Collection summary (classified by woreda) prepared daily, weekly and monthly, must be agreed with collection register. The maintenance of house rent receivable and related collection records will be checked periodically by internal audit of the Agency.

At the end of each month the copy of collection summary together with supporting documents must be forwarded to

general accounts. After checking the summary against supporting documents the following entry is passed; Cash (for the total deposit) is debited and Rent receivable (by total collection collected from each woreda) is credited for financial accounting purpose, rent receivable and collection is recorded being summarized by the total rent due and collected from each woreda.

The following tasks are made for this account.

* Every quarter year outstanding receivable must be listed from tenants subsidiary ledger;
* Outstanding receivable as listed from tenants subsidiary ledger must be agreed with tenants control ledger maintained centrally.
* At the end of every budget year, total rent due for the year plus brought forward, if any, the amount collected during the year, and the outstanding balance must be listed for each house, from tenants subsidiary ledger.

Figure 3.1: Rent Receivable and Collection Report

A.A.R.H

RENT RECEIVABLE AND

COLLECTION REPORT

FOR THE YEAR ENDED

CARD No	LOCATION	TENANT NAME	BBF (IF ANY)	RENT DUE FOR THE YEAR	TOTAL	TOTAL COLLECTED	BALANCE

* The receivable and collection report must be agreed with control ledgers; and will be maintained for future reference.

8. Accrued Receivable (1420)

Accrued Revenue (Receivable) account includes revenue generated but not collected, like accrued interest and lift service income. (This account excludes accrued house rent for rent receivable is separately maintained.) Accrued

receivable account is affected by the end of period adjustments at the end of the budget year or at cut of date of interim financial statement preparation. The entry required for such accrual would be;

accrued receivable..... Debit

appropriate income..... Credit

9. Deposits (1430)

Deposits includes refundable deposits made as contractual guarantee and the likes. Deposits are recorded by a debit to appropriate deposit account and a credit to cash. For instance, electricity deposited are deposits with EELPA to guarantee the agreement Then, to record this transaction:

Electricity Deposit will be debited and

Cash account will be credited

10.Pre-payments (1440)

Pre-payments include payments made in advance for future services to be received, such as prepaid insurance, prepaid interest, etc.

Pre-payments are recorded by a debit to receivable and a credit to cash.

At the end of the accounting period expired and unexpired portion of pre-payments must be determined and adjustment must be made accordingly.

The adjustment would be:

Appropriate expense account (for the amount so expired) is debit and

Appropriate pre-payment account (for the same amount) is credit

11.Staff Debtors (1450)

Staff debtors include all advances and loans made to employees. This account is further classified into staff debtors of regular (1451) and non-regular (1452) employees.

Advance salary payment is made for most of the employees every month; advance payment list is prepared by electronic data processing and deduction is made at month end accordingly.

The entry required at the time of advance payment, attaching therewith the advance payment list signed by the employees concerned, would be:

1451 (by the total amount advance to regular employees)is debited and

Cash (as appropriate) is credited.

(Advance paid to non-regular employees will be debited to 1452)

At the end of the month the total advance deducted on the payroll will be credited to staff debtors general ledger account, (regular or non-regular, as appropriate)

If all advances have been deducted in full as per

advance payment made, the balance of the staff debtors general ledger account will be nil. Any balance will indicate an under or over deduction, which must be analyzed and transferred to the appropriate staff debtors subsidiary ledger account. Staff debtors general ledger account (1451-1452) serves as a clearing account, for monthly transactions, and the balance on which must be cleared every month and not allowed to accumulate.

For example, the salary advance paid to regular employees for the month amounted to birr 150,000.00 and the advance deducted at month end amounted to Birr 152,500.00 , further analysis indicated that Birr 3,500.00 has been over deducted. (Birr 2,000.00 due to other debts and advance transferred from previous months Birr 1500.00 erroneously double deducted.) Birr 1,000.00 has been found skipped (not deducted)

The entry required would be:

a) For the advance payment

1451 150,000(attaching advance payment list)is debited by 150,000.00

Cash is ..... credited by 150,000.00

b) At month end attaching payroll clearance (the other transactions being the same)

Debit	Appropriate expense account
Debit	Each staff account by 1,000.00 (by name and code)
Credit	1451 by 150.000.00

Credit Each staff account by 3,500.00(by name and code)

Credit Other appropriate accounts

12. Sundry debtors (1460)

Accounts receivable that will not appropriately be classified under any of accounts receivable are recorded under this account.

The list of sundry debtors account has been so large Therefore, many codes and names have been included, in the list to record transactions of sundry debtors accounts. As a result, in addition to the existence of so many dormant sundry debtors accounts in the list, there do also exist the same debtors with different codes and different names.

Therefore list of sundry debtors account must be prepared a new for currently active sundry debtors accounts. Only one subsidiary ledger account (say, 1460-9990) need to be maintained for old sundry debtors in which the old balance, if any, will be recorded in total. Such balances should be provided in full and detailed schedules maintaining of the make-up of the balance. (Similar consideration need to be applied to old sundry creditors accounts.)

13.Inventory (1500)

Includes the value of materials, supplies and spares in the stores maintained for use by the agency.

Tight internal control must be exercised over the acquisition (procurement) maintenance of stock, and issuance. And must be ascertained that all items delivered to stores

are made against pre-numbered receiving reports and deliveries from stores are also made against pre- numbered issue vouchers.

Therefore:-

* Material requisition is prepared by user departments in three copies.
* The original and first copy will be forwarded to store and the second copy will be retained by the requisitioner.
* Upon receipt of approved materials requisition by the store, there are two alternatives;

a) If the material requested is available materials issue voucher will be prepared in five copies, Original & third copy together with material requisition is retained by purchasing and stores, first copy to accounts together with statement of stores accounts; Second copy is sent to requisitioner with materials requested. Fourth copy remains in pad. Each store issue voucher should contain the date, description of the items issued, quantity, unit and total price, account number of receiving department or job order number, the proper code for the classification of inventory, etc.

b) If the material requested is not available it needs to be procured. and the Purchase requisition is prepared by stores in three

copies. and these copies are distributed as;

The original and first copy of approved purchase requisition together with original of materials requisition will be forwarded to purchasing. (one copy from which will be maintained by stores.)

Upon receipt of the approved purchase requisition the purchasing unit will prepare the purchase order, (As per the Agency's purchasing policies and procedures) in five copies.

Purchase order is formal offer to buy, therefore it should be approved by designated official, and it must be ensured that the purchase order shows, among other data, the proper account number of the requesting department and the classification of inventory.

- Distribution of purchase order is;
    * Original - supplier
    * First & Second copy - Finance
    * Third copy - Stores
    * Fourth - Purchasing

The first and second copy of approved purchase order together with originals of purchase requisition and material requisition will be forwarded to finance.

Purchasing is made on cash or on account.

a) When purchasing is effected on cash basis:

- Upon receipt of first and second copy of

approved purchase order, originals of purchases requisition and material requisition together with proforma invoices and necessary documents required by the agency's purchasing regulation, cheque will be prepared in the name of the supplier

- The cheque must be crossed "for deposit only"
- The purchaser assigned to effect payment and receive goods will receive the cheque against signature on the payment voucher.
- Follow up ledgers must be maintained for such payments.
- The cheque so issued must be cleared with in fifteen days against formal cash receipt of the supplier and materials receipt of the store, and the receipts must be attached to the cheque payment voucher.

b) When purchasing is effected on account:-

- first and second copies of approved purchase order, originals of material and purchase requisition and material requisition, & necessary documents, together with materials receiving report are sent to finance.
- After comparing the quantity, quality, amount and terms of the purchase order against receiving reports it will be recorded in the purchase register and budgetary control ledgers.

- Upon receipt of the suppliers invoices by finance, attaching their with receiving reports and other pertinent supporting documents and checking the correctness of the invoice, in comparison with the receiving reports and the purchase order, cheque will be prepared in the name of the supplier.
- The cheque must be crossed" for deposit" and must be cleared against formal receipt with in 10 days.
- Receiving report is prepared by stores (upon receipt of materials) in five copies:
- Original and first copy to Finance.
- The Original will be attached to the cheque payment voucher and the first copy will be filed with statement of stores accounts. Second copy stores, 3rd copy purchasing unit and fourth copy pad.
- Stock cards must be maintained for each inventory item by the stores.
- Receipts as well as issues made by the stores must be posted to the bin cards and stock cards daily and the balance should be determined.
- At the end of each month the stores must prepare statement of stores accounts the original of which, together with first copy of store issue voucher and first copy of material receipt voucher, will be forwarded

to general accounts.

- The stock balance as per statement of stores accounts and as per stock cards must be compared and agreed very quarter year.
- Physical inventory will be taken periodically and reconciled with the balance of the stock cards and statement of stores accounts. Physical inventory at year end being a must.
- Upon receipt of statements of stores account together with supporting documents and checking the accuracy the following entry is passed, for issue vouchers.

  Appropriate expense account --Debit

  Appropriate inventory account-- Credit

For receipt vouchers inventory will be debited and cash or suppliers account (as appropriate) will be credited.

- If corrections are made in statement of stores accounts or supporting documents the store should be notified of the changes so that the records can be corrected accordingly.

The result of year end physical inventory will be agreed with records maintained by stores and by accounts.

14. Goods in-transit (1600)

Goods In-transit relates to imported materials, fixed assets, etc. And includes the cost of full value of imported items in transit. Imported materials are considered internist

until cleared from customs and delivered to stores. Goods in-transit account is cleaned by a debit to inventory or fixed assets as appropriate. (See letters of credit, 1200)

15. Fixed Assets (1700)

Assets of long term character such as buildings furniture, equipments, motor vehicles etc. Which have a useful life of at least three years, could be identified as fixed assets.

The cost of fixed assets should include the purchase price, taxes, duties, freight insurance, handling and other incidental charges related to the acquisition.

Acquisition of fixed assets must be received against pre-numbered receipt voucher. the accounting records to be maintained for all fixed assets are control ledger, general ledgers and subsidiary ledgers. The control ledger account (1700) shows the overall costs less depreciation charges of all fixed assets in summary form.

Fixed assets are classified into groups having similar characteristics. The general ledger accounts (1710-1720,...) are designed to provide summary information for each group of fixed assets.

Subsidiary ledgers are maintained for each piece of fixed assets stationed in each location in order to provide significant data in support of general ledger balances. One card must be kept for each fixed asset and all information

with respect to the item must be listed thereon, This information unusually includes, the name of the asset, location, date acquired, original costs, transportation charges installation costs, estimated life, depreciation rate, depreciation to date, etc.

The cost of fixed assets must be assigned to revenue over the limited duration of the asset's usefulness. The method that is to be used in allocating depreciation charges is straight line method.

The rate of depreciation to be applied, would be;

Building:

* Apartment 2.5% (40 years)
* Pension 4% (25 years)
* Villas 5% (20 years)
* Office furniture's & equipment 10% (10 years)
* Motor vehicles 20% (5 years)
* House hold furnishings 20 % (5 years)
* Other differed costs 20% (5 years)

16. Work in progress (1800)

Expenditures made for the construction of buildings, major improvements to existing buildings undertaken to increase the useful life or the size of the building, and materials production are charged to this account until the planned works are completed. The costs so accumulated are transferred to the proper fixed assets account upon complication.

17. Liabilities(2000)

Liabilities are debts and are namely classified into current liabilities (payable with in one year) and long-term liabilities (payable, at least, after one year.)

18. Trade creditors (2110)

Current liabilities related to purchase on account are credited to this account.

19. Sundry Creditors (2120)

Current accounts payable which can't appropriately be classified under any of current accounts payable will be credited to this account.

- List of sundry creditors account must be prepared for currently active sundry creditors accounts, only one subsidiary ledger account (2120-9990) being maintained for old sundry creditors in which the old balance to be recorded in total. (see sundry debtors 1460)

20.Contractors Payable (2130)

Retention and other debts to contractor in relation to construction works is credited to this account.

21.Deferred Revenue(2140)

Revenue collected before giving the required service. This account will be credited as the cash is collected prior to service rendering.

22.Unclaimed salaries and wages (2150)

This account is classified into unclaimed salaries (2151) and unclaimed wages (2152). when a regular or non-regular employee doesn't take his (her) salary during the specified time, the money will be returned to the bank and the account will be debited.

23. Current maturity of long-term loan (2160)

Long term debt(or part of long term debt) payable with in a year. The account will be credited and the proper contra-account will be debited.

24. Accrued Liabilities (2170)

It includes expenses unpaid on the cut of date of financial statement preparation or at the close of the budget year.

Adjusting entries for the expenses incurred but not paid will be credited to this account debiting the appropriate expense account.

25. Payroll taxes with held (2200)

Taxes and contribution with held from employees salaries

and wages. Income tax, pension tax, pension tax and related taxes are included in this account.

26. Government taxes (2300)

Taxes payable to various government agencies are separately (from other accruals) recorded when they become due by debiting the appropriate expense account and crediting the appropriate liability account.

27. Funds on deposit (2400)

It includes funds deposited with the agency but returnable to depositors when they fulfill their contract requirements.

28. Trust Funds (2500)

Funds deposited by other organization or collected by the agency on behalf of others for custody or payment to the authorized agents.

29. Contingent Liabilities (2600)

Liabilities that will be determined by the outcome of pending events. Contingent liabilities are normally disclosed in the notes to the financial statements.

30. Long-term liabilities (2700)

Liabilities payable at least after one year. This account will be credited when the Agency received service or material in loan.

31. Compensation for ex-house owners (2800)

Amount paid to previous owners of extra houses, this account will be debited as if the liability had been established at nationalization). But there was establishment of liability at the time of nationalization.

32. Capital (3000)

State capital (3100) amount provided by the government to establish the agency. Reserve fund (3200) part of the profit appropriated by the agency.

33. Profit and loss (3300)

An account to which balances of all revenue and expense accounts are transferred.

34. Prior years adjustments (3400)

Adjustments to correct major errors in prior years accounts or to reflect prior year changes necessitated by proclamation 163/79

35. Revenue (4000)

Revenue of the agency could mainly be classified into Rent Income and Other Income.

36. Rent Income (4100)

Rent income being the major income of the agency is further sub-classified by rent revenue of each zone and each woreda (see rent receivable (1400)

37. Other Income (4200)

It is further classified into interest income, lift service income, water charges, income from rendering(other) services like disposal service & car hire, and sundry income.

38. Direct Expense (5000)

Direct expenses, being expenses that could be traced to specific revenue generating unites, are house maintenance expenses.

Direct expense, for financial accounting purpose, are recorded totally for each woreda (see rent receivable (1410) and rent income (4100)) classified into direct material, direct labour and maintenance overhead expenses. Houses maintenance expense of contract works will be recorded separately. Subsidiary ledger for maintenance costs of each housing unit will be maintained separately by costing unit. (see costing)

39. General & Administrative Expenses (6000)

General and administrative overhead expenses are classified by departments (unit of expenses) and further classified by the type of expenses.

Subcodes of types of expenses are:

* Salaries & related (sub-code 01- 10)
* Materials & supplies (" 11-20)
* Utilities (" 21-25)
* Maintenance service (" 26-30)

* Government Taxes (" 31-38)

* Sundry expenses (" 41-55)

3.4. INTERNAL ACCOUNTING

3.4.1.Costing

Cost being the amount of resource foregone or expended in exchange for some goods or services, costing is the determination of resources given up for specific goods or services.

Two basic costing systems, job order costing and process costing, are used to measure costs. Job order costing being appropriate to measure the costs of activities carried out in batches or in intermittent activity runs is applicable, and is used, for activities carried out by A.A.R.H.

Activities whose cost must be determined (cost objectives) in the agency are:

1. Construction works (New constructions)
2. House maintenance works
3. Material production.

These activities could be carried out in contract basis (contract works) or by the agency itself (own works).

Construction works (New constructions) of the agency are carried out by building contractors in contract basis except minor constructions, if any.

House Maintenance works could be carried out either by the Agency itself or in contract basis.

Material production includes production carried out by metal and wood workshops of the Agency and gardening projects.

3.4.1.1. Contract Works

Contract works could be for construction of new projects or house maintenance works.

Agreements for new construction works are signed by the General Manager of the agency. Maintenance agreements costing up to Birr 30,000.00 (subject to revision) may be signed by Engineering and Technic Department head as per delegation of the General Manager.

Agreement copies are distributed, among others, to:

- Consultant
- Engineering and Technic Department
- Finance Department
- Audit and inspection
- Archive

Upon receipt of construction and/or maintenance agreements or signing of maintenance agreement, Engineering and Technic department will prepare separate works order so as to get the work started. Separate works order should include:

* Separate works order number (which should indicate

the budget year when the work started, the type of work, and specific number of the work)

* Location of the work
* Description of the work
* Estimated cost (contract price)
* Expected completion period
* Date to be started.

The Separated works order will be distributed to:

Original - Contractor

First copy - Finance Department

Second copy - Zone, Dpt ,(Branch) where the work is located

3rd copy- Engineering and Technic Department

4th copy- Audit and Inspection Service

Every quarter year progress report for contract works must be prepared by Engineering and Technic department.

Progress report must indicate;

* Separate works order number
* Location of the work
* Description of the work
* Estimated cost (contract price)
* Date started
* Percentage of completion
* Completion date (date completed for completed works)

Progress report will be distributed to;

a) New constructions works,

- General manager
- Finance Department
- Housing Administration Department
- Audit & Inspection Service

b) House Maintenance works

- General Manager
- Finance Department
- Audit & Inspection service
- Dpt, Zone (branch) where the work is located.

3.4.1.1.1 Recording the Cost of Contract Works

Upon receipt of separate works order, works order card (subsidiary ledger) will be opened for each work by costing unit. Works order number, locating of the work, description, and estimated cost (contract price) will be recorded in the card.

Payments made as per payment certificates or others, if any, will be recorded in the works order card then opened. using the progress report and payments made and recorded, estimated cost and actual cost will be compared noting down differences.

Every quarter year construction (new projects) and house maintenance contract work cost report will be prepared.

The cost report, among other, will indicate;

- Separate work order and agreement number
- Location and description of the work

- Contract price, main agreement and variation agreements, if any.
- Date started and expected completion period.
- Percentage of work completed
- Actual cost for the work performed, i.e. (contract price (total estimated cost) X percentage completed.)
- Variance, if any, between estimated cost and actual cost of the work performed.

Cost report will be distributed to:

- General Manager
- Engineering and Technic department
- Audit and Inspection Service
- Dpt, Zone (Branch) where the work is located, (maintenance cost report only)
- At complication of the work, the cost of new construction works and major improvements will be transferred to fixed assets.

3.4.1.2 Own Works

Three basic types of costs are identified for works carried out by the Agency itself (own works) i.e., Direct material, Direct labour and maintenance overhead. House maintenance works by the agency itself (own works) may be carried out by Engineering and Technic department or by zones.

For maintenance works carried out by Engineering and Technic department separate works order will be prepared by

the department itself. For maintenance works carried out by Zones, separate works order will be prepared by the zone concerned.

Separate works order to own works will be similar to contract works, except that estimated cost instead ,of contract price, will indicate direct labour cost, direct material cost, maintenance overhead, and total estimated cost.

Separate works order will be addressed to the unit or desk that will carry out the work and will be copied to Finance department, Engineering and Technic department and/or zone (Branch) where the work is located.On each materials issue voucher, separate works order number must be indicated. Weekly time sheet must be maintained for each employee assigned for maintenance works indicating the work order number for both permanent and contract employees. Monthly fuel consumption and average distance covered must be maintained for each vehicle assigned for maintenance. Every quarter year progress report must be prepared by engineering and Technic department (for maintenance works carried out by the department) and by each zone (for maintenance work carried out by zones). Information required in progress report of own works is similar to contract works.

Progress report will be distributed to:

- General Manager
- Finance Department

- Audit and Inspection Service
- Engineering and Technic Department (for works carried out by zones)
- Zone (branch) where the work is located (for works carried out by Engineering and Technic department).

3.4.1.2.1 Recording the cost of own works

Upon receipt of separate works order, works order card(maintenance cost card) will be opened for each work by costing unit. Direct material consumption will be posted as per statement of stores account and material issue voucher. Direct labour cost will be posted us per weekly time sheet and average rate of pay of maintenance workers (average rate of pay is applied in order not to charge different amount for similar works due to pay differences and for simplicity) Maintenance overhead cost includes supervisors salaries and transport cost. Transport cost will be determined by applying the following rate (rate per kilometer) on the total Kilo-meter covered by each vehicle being used for maintenance during the month.

Rate per Kilo-Meter:

Small Automobiles	Birr	0.75
Mini Buses	"	0.84
Pick ups	"	0.87
Light duty Trucks	"	1.17
Heavy duty Trucks	"	1.80
Heavy duty Trucks with trailer	"	2.43

Supervisors salaries and transport cost will be distributed to maintenance works performed during the quarter year in proportion to Direct Material and Direct Labour cost.

Using progress report and cost so recorded, estimated cost and actual cost will be compared, noting down differences. Every quarter year maintenance (own works) cost report will be prepared. Information indicated in maintenance cost reports and report distribution of own works is similar to contract works.

3.4.1.3 Material Production

Material production includes production activities carried out by metal and wood workshops and gardening projects. Procedures and reports of material production are the same as other own works, except that for material production goods produced report will be prepared (in addition to others) by the workshops or project concerned. And the cost so accumulated will be distributed to goods produced. The report will be cost of goods produced report.

3.4.2. Budget

Budget is a comprehensive quantitative plan for utilization of an organization's resources for some specific time period; it is a financial plan of an organization.

Budget preparation being estimation of future events and serving as estimation of acceptable performance, need be participative; i.e. departments need to prepare their

operating budget proposal. Once a budget is approved it must be adhered to, and can serve as a vital instrument for measure of performance. Budgetary ledgers are maintained to control the expenditures in accordance with the approved budget. The ledger must provide a detailed record of the approved budget for each expenditure, actual payments made, total commitments chargeable to budgeted funds, and the uncommitted balance; i.e. as purchase orders or contracts are approved the amount of such obligation should be recorded in the ledger and the uncommitted balance is reduced accordingly. As actual expenditures are made the commitments are decreased and the actual payment is recorded.

Budget report, comparing the actual result with the approved budget and noting down difference, must be prepared monthly, quarterly and yearly. And it will serve management for comparison of actual results with budgeted data, evaluation of differences and taking corrective actions to adjust for differences when necessary.

3.5. TRANSACTION PROCESSING

3.5.1 Components of the transaction processing system.

The principle components of a transaction processing system include inputs, processing, storage and outputs.

3.5.1.1 Inputs

Source document, such as cash receipts vouchers, check payment vouchers, petty cash payment vouchers, store issue

accounting transactions. All accounting transactions are reflected in the general ledger. A debit-credit entry is inputed for every transaction. The general ledger generates a trial balance to test the accuracy of all the prior record keeping.

There are several types of files used in the accounting system of A.A.R.H. The major files are:-

- Transaction file
- General ledger file
- Journal Voucher file
- House file
- Master file

3.5.1.4 Output

There is a wide variety of output from a transaction processing system. Any document generated in the system is an output. The outputs of a transaction processing system are journal lists, house file schedule, subsidiary ledger schedule, general ledger schedule, Balance sheet and Income statements.

The trial balance lists the balance of all the accounts in the general ledger and tests the accuracy of the record keeping. Thus, it is the fundamental to financial control and preparation of financial statements.

The other financial reports, stated above, summarize the result of transaction processing and express these results in accordance with the principles of financial reporting. All internal accounting procedures and operations are performed manually.

CHAPTER 4

PROPOSED DESIGN OF ACCOUNTING INFORMATION SYSTEM FOR A.A.R.H.

4.1 EVALUATION OF THE EXISTING ACCOUNTING SYSTEM

Attempts have been made, in earlier chapter, to show

(a) how A.A.R.H currently handle the different accounting transactions; and

(b) transaction processing system including Inputs, Processing, Storage and Outputs.

In this section, the prevailing accounting system of A.A.R.H. has been evaluated. The evaluation is based on the usefulness of the information system to decision makers and interested outsiders in line with the interview made to top-level managers of the A.A.R.H. and the result of the observation made by the researcher.

4.1.1 Weaknesses of the system.

The Billing system or rent collection system can be called the heart of all other accounting system. There are currently a total of 17,570 houses which include government and private offices, hotels, hostels, and resident houses.

The current billing system uses the receipt voucher. Each tenant or customer or his/her representative has to go to the A.A.R.H's Zonal office, where his house is located, in

order to pay the rent. The rent collector then receives money and issues the receipt voucher for the tenant/customer.

This type of billing system is not capable enough to:-

1) Obtain information when and where it is needed by the management;
2) provide delinquent list of tenants;
3) Encourage tenants to pay their rent on time; and
4) Have link with the other accounting system components.

One of the difficulties in accounting and controlling the collection of rents arises from the heavy load of manual paper work inherent in the current system.

The existing accounting system dominantly serves for financial accounting. Management Accounting or Internal Accounting is not incorporated in the computerized Accounting system. Therefore, the system doesn't follow the quality of accounting approach by providing accurate, meaningful and periodic reports to the Management of A.A.R.H.

The Agency is currently using Batch-oriented systems. From a data management view point, processing is characterized by limited coordination and interaction between application files. This resulted in much duplication of data and created problems with the consistency and integrity of a data element used separately in each of the several independent files. From a user's view point, such systems provide very little direct linkage or control over the data processing equipment; and have extremely poor responsiveness and flexibility.

The user, finance department, submits batch of transactions to the separate Information service department. Transactions are converted to machine readable form by encoding the data and are subsequently processed as a batch against the relevant application file, which itself is kept in machine readable form. These batch-oriented systems are characterized by printed output--the equivalent of journals and ledgers--which provide human--readable evidence of transaction processing.

4.2 GENERAL DESIGN

4.2.1 Databases of the Accounting System

Several very important principles apply to database design; of particular importance is the fact that the Agency's databases be integrated. Integration leads to the avoidance of collecting and maintaining the same data items in more than one place in the Agency. In an integrated system, various phases of business operations can share the same data. For example, the Housing department, Finance department, and Engineering and technical department all have a need for the tenant's (customer's) name. Flexibility and security are other important features of the designed database. The databases are designed in such a way that users can structure a wide variety of queries. A flexible database allows for production of any type of report when ever need arises. For example, one manager might want the rent collection broken down by Zones and then by Woreda, while another manager might want rent collection broken down by woreda and then by Zones. Management Accounting reports,

such as cost accounting, cash flow statements are incorporated in the designed Accounting Information system in order to support the decision makers of the A.A.R.H.

4.2.2 Designing user Interface devices

The first, and in many ways the most important, step in system design is to define exactly how the user will interact with the system.

The focus during data collection was on defining output requirements, since those are the end products of a computer based information system. During the design of user interface, the focus shifts to input formats and methods, with secondary emphasis on output.

There are different types of interface devices such as video display terminals, (VDTS) special-purpose terminals, hard copy printers, voice and /or output devices, view data. These are available in the market.

Among these types of interface devices, the researcher recommends video-display terminals and hard-copy printers. VDT are commonly used devices for interactive works. A hard-copy printer should be offered as a device shared among several display terminals to minimize cost. The VDT recommended here will be used in two general modes namely **forms** mode and **menu** mode. The former one is used for transaction processing application.

Detailed discussion on user interface is presented in the next chapter.

4.2.3 Recommended computer System

A communication network system is selected for the operation of accounting information support system for A.A.R.H.

The main reasons that the researcher recommended networks is to provide management with the most up-to-date information to ensure timely and relevant decisions.

There are five Zonal offices in different locations of Addis Ababa city, which are responsible for collecting revenues, and for minor maintenance of houses. There is the Housing Administration Department which is in charge of registering the demand for house rent, renting houses, approval of maintenance and other any issues on house management.

Engineering and technical department is in charge of major maintenance of houses, construction of new buildings and any matter related to engineering aspect.

All the above offices are in different locations. General Manager office, Finance department, Information Service, Administration and other advisory services are located in the Head Quarter.

Accounting data communication between the above different locations would be electronic media. This electronic media is selected because sending data by physical media like floppy disk or tape is slow, it is also risky and inconvenient. Floppy disks must be copied, backed up, packed, sent, received and unpacked. Effective use of much data and information cannot withstand the delays inherent in copying to floppy disks, overnight delivery, and reentry at another

location.

Managers want--and indeed, their decision responsibilities require--more rapid access to information. They want to send and receive files, programs, documents, and messages easily and quickly. Their ultimate objective is to make data and information conveniently available to other managers for direct use and further processing.

Hardware and software requirements, and the detail operations are discussed in Chapter 5. These Hardware and Software have to be used for different applications other than the Accounting Information System.

4.3 DATABASE DESIGN

4.3.1. General Overview

A database is the collection of all organizational data files interrelated and stored as part of an information system. The objective of to developing databases is to increase the utility of an accounting information system.

The databases designed here are intended to simplify and standardize the repetitive aspects of file maintenance and processing for the user.

A.A.R.H is currently using the traditional approach to data processing which is to have each application area such as payroll or receivables develop and maintain its own independent file(s), Though it is the cheapest and simplest approach, there are several disadvantages. The first and most obvious is that the same data item is used in several different application area as with independent files, this

data item has to be fed into each application file.

Second, because files must be rigidly defined early in the system implementation process, procedures are constrained by the existing file structure rather than the file structures being determined as the application develops. Finally, independence among files often leads to different structures for the same data, different coding systems, different abbreviations, and different field lengths, to name a few examples.

Database design is the key element in the system design process. Because the database design in many ways represents the focal point of any computer based system. A database is typically organized to reflect data relationships which exists in the real world; thus the database is usually shared by many applications, and its length of existence is independent of the execution of any particular application program.

4.3.2 Detailed Database Structure

Database contains all data utilized by an application software. The individual set of stored data is refereed to as a file. The physical existence of stored data is evidenced by the physical storage media - diskettes: used for secondary storage.

4.3.2.1. Data Dictionary

The following manual data dictionary is prepared for keeping track of data definition.

4.3.2.2 Files Designed for the Proposed System

In designing the prototype database the following files are considered.

1. Receivable file (RECFL)

Accounts receivable represent the money owned by customers for rent services rendered. Since all renting is done on credit, the accounts receivable often represent the majority of A.A.R.H.'s working capital. Accounts receivable also maintains customer credit and payment history information, which is useful in the overall administration of Agency credit policies.

Conceptually, the accounts receivable procedure is straight forward. A subsidiary ledger of individual accounts is maintained, with a control account in the general ledger. Debits and Credits are posted to the individual accounts; periodically, statements are prepared and are sent to customers. Aging schedules are prepared as by-product of sending statements.

Data processing of accounts receivable can be tedious because of the volume of transactions and of the number of accounts that exists in A.A.R.H. There are now 17,570 houses under the management of the Agency in Addis Ababa excluding various houses under construction.

Figure 4.3: Data Dictionary for RECFL

Field Name	Type	Length
Tenants	Alphabetic	20
Zone	Numeric	2
Woreda	Numeric	2
Kebele	Numeric	2
HostNo	Numeric	3
HouseNo	Numeric	4
ApartNo	Numeric	3
Bed	Numeric	2
Rent	Numeric	8
Balance	Numeric	9
VoucherNo	Numeric	4
VoucherM	Numeric	2

2. Transaction file (TRANS)

All entries into the general ledger are documented via journal vouchers, which represent the transaction during a given period, identified to the chart of accounts. Each Zonal office is responsible for the preparation and submission of journal vouchers as they affect its operations. Journal vouchers are used to build the journal voucher file (the transaction file). This file is sorted and edited to show the validity with respect to the proper journal and account numbers as well as to determine whether the accounts are correctly associated with their related journals. Invalid data are

reported as exceptions to established standard and returned to originating sources for correction and reentry. The edited journal voucher file should be sorted and structured to produce a variety of reports. The Current Journal Voucher transactions are processed against the previous months general ledger master file (the old master) in order to update that file and produce the current periods general ledger register.

Figure 4.4: Data dictionary for TRANS

Field	Type	Length
VouchN	Numeric	4
VouchM	Numeric	2
Zone	Numeric	2
Acct No	Numeric	4
SubAcc	Numeric	3
EXPT	Numeric	2
Woreda	Numeric	2
Kebele	Numeric	2
HostN	Numeric	2
HouseNo	Numeric	4
ApartNo	Numeric	2
Bed No	Numeric	3
Descr	Alphabetic	18
Amount	Numeric	9

3. General Ledger Master file (GL-Master)

If a ledger contains accounts (which may be controlling accounts rather than detailed accounts) for

all the assets, liabilities and equity, including revenues and expenses, is called a general ledger. It summarizes the chart of accounts for the entire organization.

The journal voucher from billing receivable and the control total received from cash receipts are compared. The amounts are then posted to the general ledger. Note that the source of posting the general ledger is the journal voucher notification by billing of the amount must agree to the total of the cash received from customers by cash receipts.

The reports generated from the general ledger are:

- General ledger by account;
- General ledger summary;
- Working trial balance;
- Trial balance; and
- Balance Sheet

Figure 4.5: Data Dictionary for GL-Master

Filed	Type	Length
AcctNo	Numeric	4
SubAcc	Numeric	3(for a few accounts only)
Descr	Alphabetic	20
Balance	Numeric	9

4.4 REPORT DESIGN

To select their goals and to design activities to further those goals, managers need financial information.

Managers should help design the reports they will receive, specifying their content and frequency.

Accordingly, two hours meeting with the General Manager and Finance Manager was conducted for discussing about the report design. Managerial participation of this kind integrates performance reporting with data gathering, and other functions of the accounting system.

Different type of reports used for the designed system is shown in the next chapter.

4.5. DESIGN OF USER INTERFACE

The fundamental changes in on-line system is that the user is brought into direct contact with the computer system. The users enter data and can receive output directly via a terminal.

The interfaces occur through key board input and CRT output.

Dialog Design

Any user sitting at a CRT participates in a dialog with the computer system. On-line systems directly involve the casual user or data entry clerk in human machine communication. Among the several types of user-machine interfaces in on-line systems, the researcher recommends the menu format. This is output and is amplified by a user who queries a file for example, a user who uses a CRT to obtain a customer account balance.

Dialog design for output display is structured so that the user guides the direction of the dialog, but the

computer provides a forced-choice response, selection of menu option. Such dialogs occur when a user wants to query a file, such as a customer's account balance.

The detailed screen layout format and user-interface operations are discussed in the next chapter.

CHAPTER 5

SYSTEMS OPERATION AND PLAN FOR IMPLEMENTATION

5.1. INTRODUCTION

Thus far discussions were made about the existing accounting system in A.A.R.H. and evaluation of this existing system with a view to proposing a better system by designing a new computer based accounting information support system. The design part in Chapter 4 is limited to the logical design.

This chapter deals with

(a) The physical design of the databases and user interfaces;

(b) Demonstration of the function of the proposed system;

(c) The required hardware and software specifications; and

(d) A plan for its implementation.

5.2. PHYSICAL DESIGN OF DATABASES AND USER INTERFACE

5.2.1. Detail Databases Design

The Databases designed logically in chapter 4 of this thesis are designed physically using dbase IV This Database Management system software is recommended in order to handle the accounting procedures and functions of the Agency. The software was acquired by the Agency in 1993 and it is also convenient for networking system. In addition, there are staffs who know the dbase IV and there is a plan to perform

other Management Information System applications using this software. These are the major reasons for recommending dbase IV.

A detailed design must include every system detail __ every line of every form, every procedure; every report, every control, every format, every responsibility, every position __ of the completed system, and should indicate how it will be developed and put in place. But the researcher could not realistically produce a complete and detailed design with in such short time frame. However, attempts have been to design a prototype database with detail input and output forms. The study can be completed after the required hardware and software are purchased.

The basic databases designed for accounting information support system of A.A.R.H., as discussed in chapter 4, are:

a) Receivable File (RECFL);

b) Transaction File (TRANS); and

c) General Ledger Master File (GL-MASTER)

5.2.1.1 Description of the Databases

The Receivable file (RECFL) holds data about the house master. Additional houses or reduction of houses are recorded in this file as soon as the application is executed; the rent amount of each house is debited and income account is credited.

The transaction database file (TRANS) is used to store the monthly transactions. After the execution of the application program this file creates a new file called TRJOUR which is a sorted database file; and from the TRJOUR

file the program generates a subsidary ledger, called SBLEDGER.

The general ledger master (GL-MASTER) file allows to create or edit new master records other than houses. This file also generates a new file called TRIALBAL after the execution of the program. (The programming languages used and the detail of it is discussed in the next section)

Generally, for the prototype design there are six database files which will be discussed in the demonstration section.

5.2.2. Design by Forms

Design by forms is an approach to systems development in which, by working with data input, edit, and report formats, the user specifies all data elements and the data structures that contain them. Thus, the researcher has tried here to show the content and appearance of screen input and output for the designed prototype system.

Forms and reports (i.e. paperwork) provide the primary interface between users and the information system. Forms for collecting data are the physical manifestations of the input design block; reports that provide information are the physical representations of the output design block. Interface dialogue via a terminal also follows a forms/ reports concept.

Many types of forms exist in A.A.R.H accounting information system. Some of them are :

- form for payment vouchers,
- budget worksheets,

- purchase orders,
- rent collection reports,
- tenant lists,
- routing files.

These different types of reports and forms can be categorized into two parts- Input forms and output forms.

5.2.2.1. Input forms

The primary purpose of this classification of forms is to record data for subsequent processing. The researcher here did not alter the forms (paperwork) which are used currently in the A.A.R.H. However, new data entry form via terminal is designed.

The following considerations were taken while designing the input forms in terminal.

a) The first determination was what data are to be recorded.

The data to be recorded would be all financial activities related to accounting transactions. The specific data fields required and the anticipated length of each field have been described in earlier chapter.

b) Secondly, consideration was made whether the data will be recorded by an employee of the Agency, by one person or by many different people, inside or outside of a building. Accordingly, the data will be entered by each zonal office and department, as the transaction occurs via terminal. The time when rent is collected or any expense is incurred, the accountant will immediately enter the data.

c) In order to prevent computer fraud the input should be manipulated as follows:

i) Implementation of user access controls by

- Use of IDs and passwords,
- Change of passwords often, and
- Writing the passwords by Computer hiddenly

ii) All changes in the master file should be traceable to the users ID number.

- Hard copy records can be made at the time of the change.
- Reconcile hard copies of inputs with file changes.

iii) The users communication terminal should only perform functions that are necessary part of the job.

The input form is designed for screen layout is shown in figures 5.14, 5.15, and 5.16.

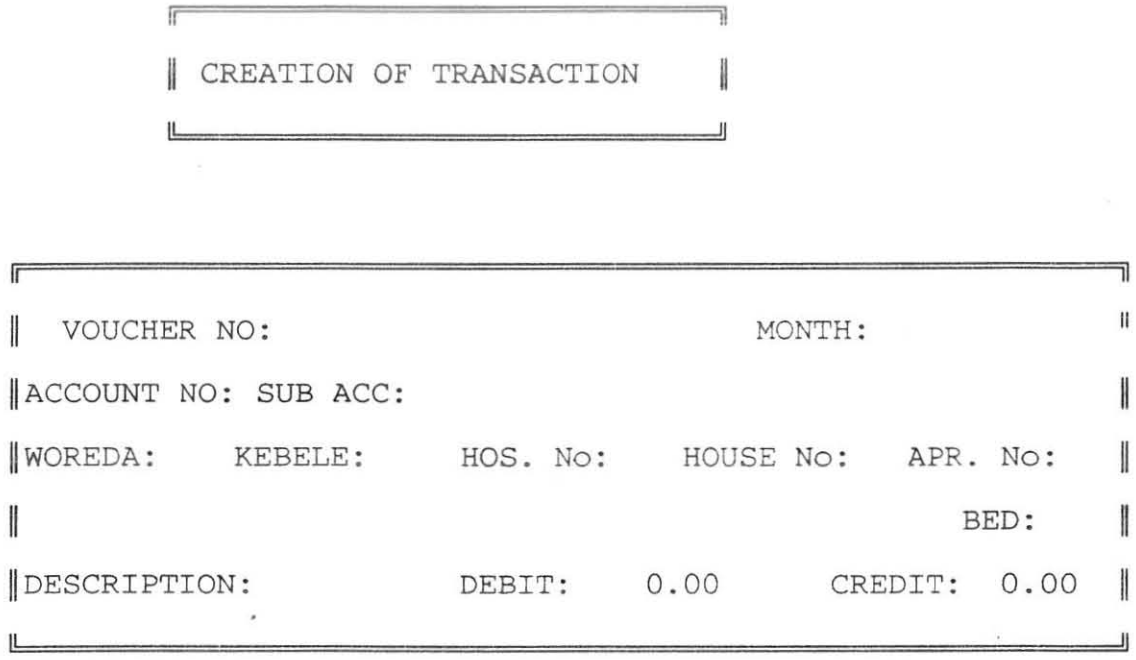


Figure 5.14: FORMS TO BE USED FOR TRANSACTION CREATION

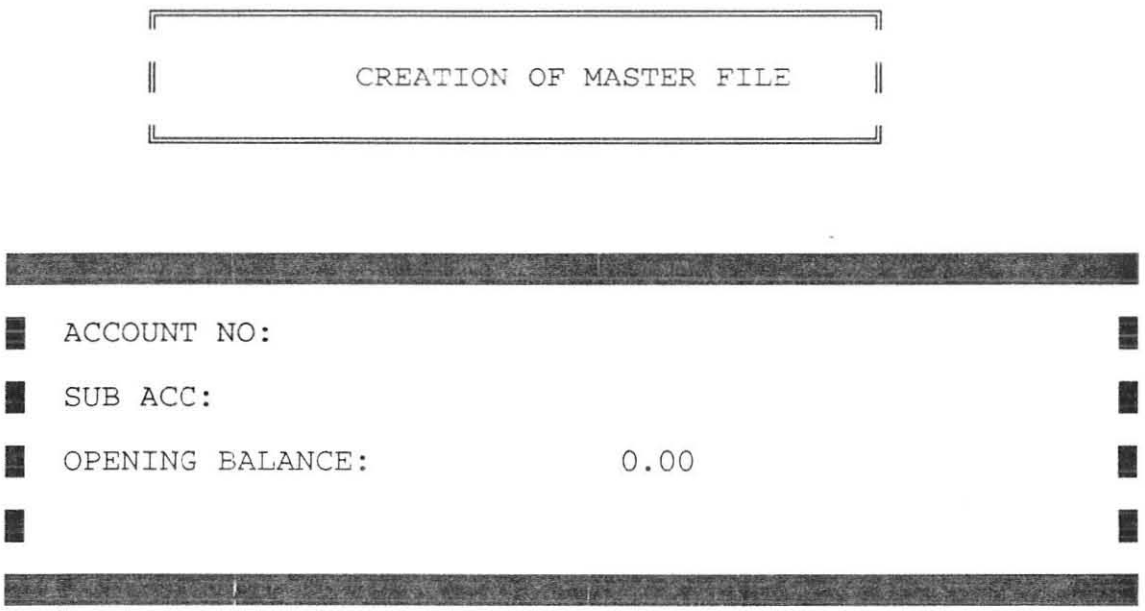


Figure 5.15: FORMS TO BE USED FOR MASTER CREATION

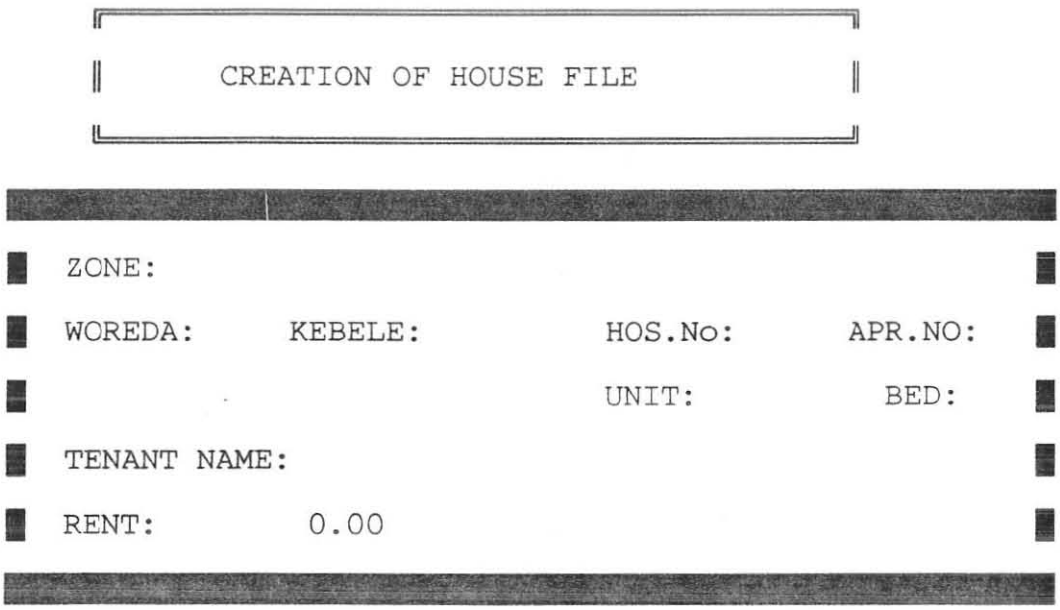


Figure 5.16: FORMS TO BE USED FOR HOUSE INSERTION

5.2.2.2 Output forms

The design of information outputs such as budgets, performance summaries, trends, and the like, however, is not as concerned with the quality of paper and type of print font.

The information outputs must have meaningful content, and be in a format that assists the user in understanding what is contained therein. Based on this fact, the researcher designed the output forms on screen which can also be used for print form; Reports designed for users are of several types.

The reports designed for prototype database is shown below in Figures 5.8, 5.9, 5.10.

Since the proposed computer system is a communication network system, the user can easily get any accounting

information from his (her) terminal. The menu selection process continues until the user has the desired information. Menus are designed for the users who have access to use the information.

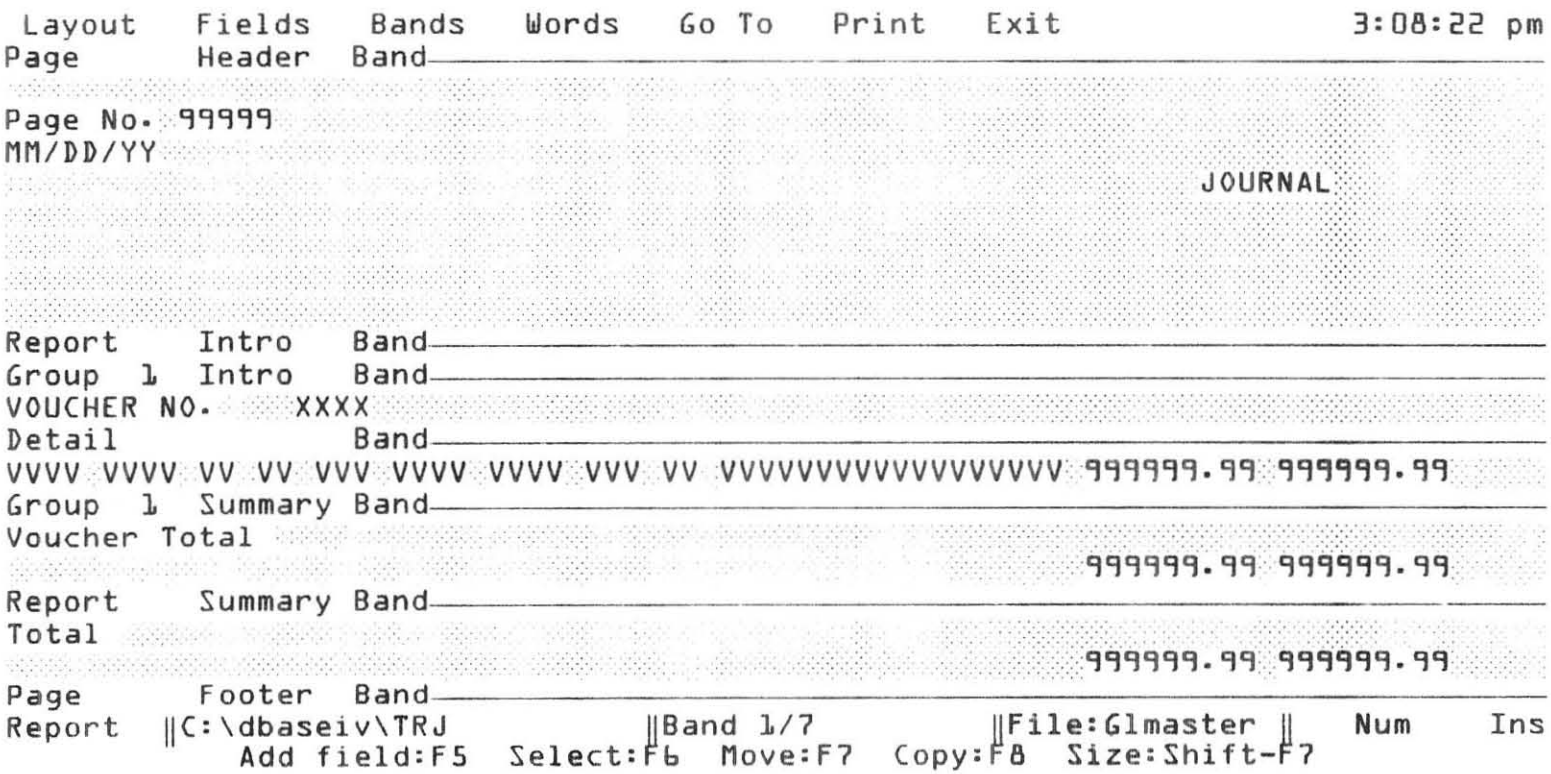


Figure 5.7 General Journal Report Form

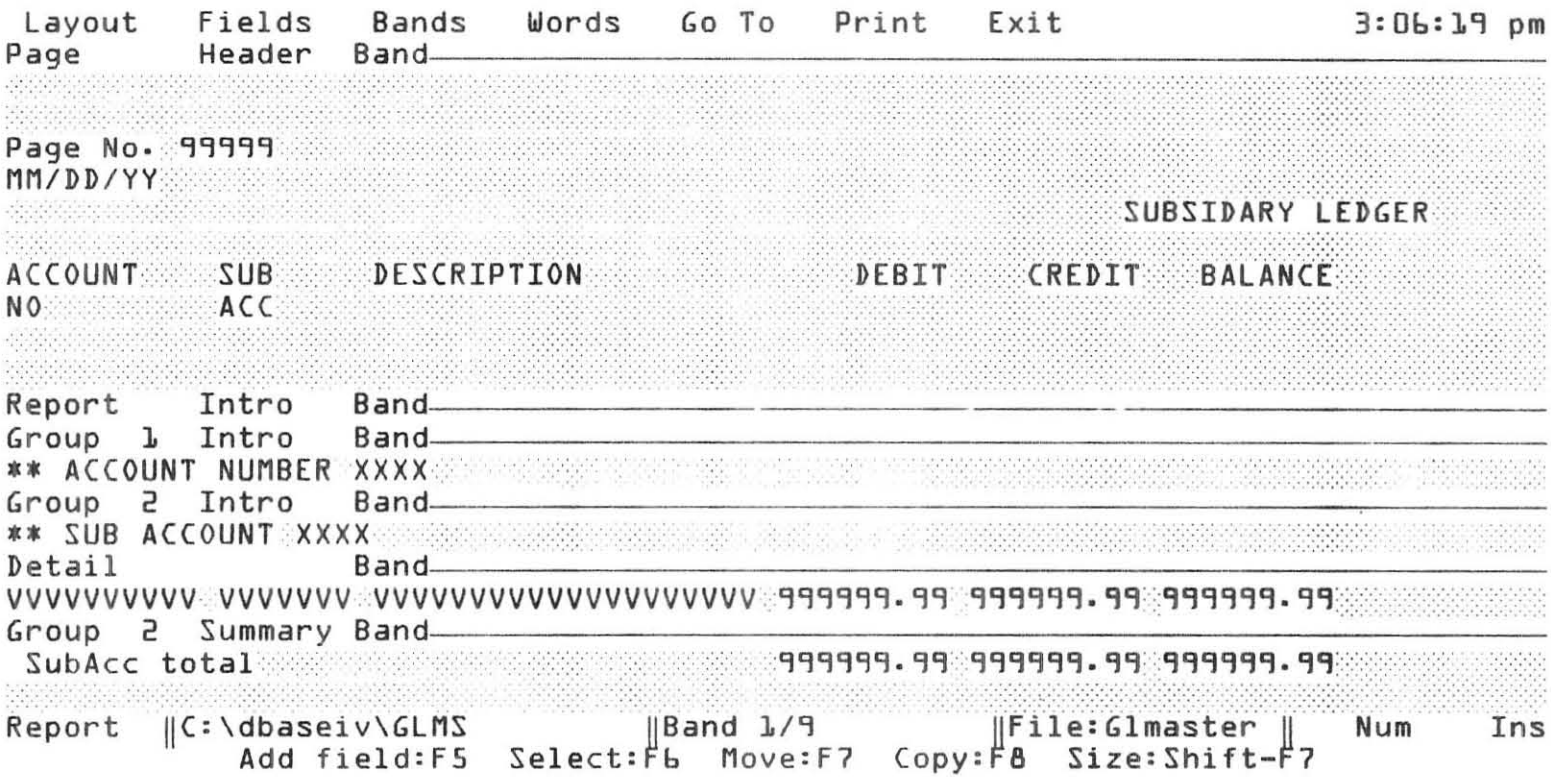


Figure 5.8 Subsidiary Ledger Report Form

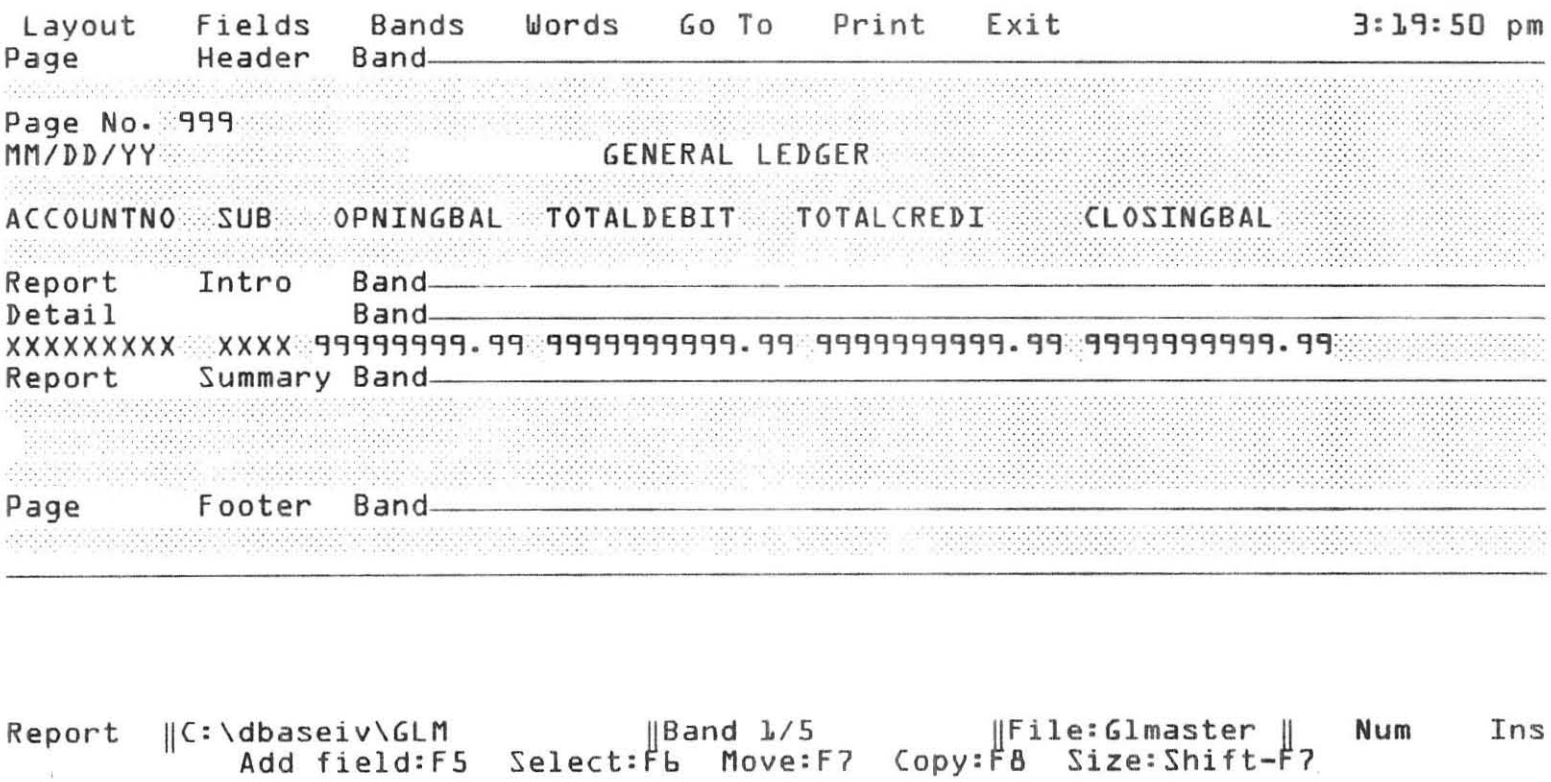


Figure 5.9 General Ledger Report Form

5.2.3 Procedures and Functions of using the proposed forms

5.2.3.1 Users Group

The users of the system are categorized into two major groups: (1) Operational group, and (2) Management group. The procedures concerning how to enter transactions, edit, update, and generate and print reports have been discussed in relation to the users group. Therefore, each system function is based on type of the user.

Operational group includes Chief Accountant, Accountant, Junior Accountants and accounting clerks. Members of the management group are top- level managers of the Agency who are the end users of the system. The need for accounting information varies from the operational group to management group.

The former group is basically concerned with the input of new transactions, editing, and also with some analytical works to facilitate the use of data for the later group in the decision making process.

The management group can obtain information from the system as summary form.

5.2.3.2 Procedures showing How To Use The proposed system

As discussed in earlier section, different on line input and output forms are designed. The forms designed are used for entering data and for producing the desired output.

The standard dbase IV by itself couldn't handle the designed system.

The reasons are as follows:

- The standard input form is not suitable for Accountants to enter transactions.
- In order to make the system more user friendly new menus must be designed for the system;
- Different database files must be linked to produce a desired report;
- Transaction and master records must be updated each month. Hence , updating facility should be added to the system; and
- In order to summarize, sort and analyze accounting data as per accounting principles, additional works must be incorporated.

Therefore, the researcher did not use the standard dbase IV interface. A Program using the dbase IV language has been developed in order to perform the desired functions of the systems.

The procedures showing how to use the system by different group of users, are discussed below :-

1) The first step to enter into the system is to start dbase IV through the gateway to accessing the dbase IV menu system. There are six panels as you run dbase IV under the control center;

2) Out of the six panels, the operational group should highlight Applications;

3) There is" ACCOUNTY" under Application which contains programs written for the accounting information support system. Thus, the operational group should select ACCOUNTY to run the application;

4) As the program is executed six menus will appear on the screen . These are :-

- CREATE
- EDIT
- UPDATE
- REPORT
- PRINT
- EXIT

5) If Accountant, Junior accountant and accounting clerks wish to input new accounting transactions then he (she) will select CREATE menu and a submenu appears. User will then select transaction which appears under the menu. For Creating Master records it is the same step under Create menu. The input form which comes after execution of transaction submenu is as described in earlier section.(Figure 5.14)

6) Senior Accountants and chief Accountant have the responsibility to edit the transactions or master records. Among the six menus they have to select Edit menu and immediately submenu appears whether transaction or master records to be edited. Then the system asks which voucher number is to be edited.

7) Update menu should be run by chief accountant. The monthly transactions and master records are updated so that the closing of each account balance will be transferred to the subsequent month. The update menu must be selected monthly when all transactions and master records of a month are completely recorded and edited.

8) After updating, in line with the need of Finance

Manager or General Manager or external auditors, reports can be generated by selecting a report type from REPORT menu. The report types to be selected appear as soon report menu is highlighted. If someone wishes to know the balance of a particular account the different program called SBLEDER should be executed.

9) PRINT menu is used to print any required report.

10) Exit menu is for exiting from the system or from the menu.

5.3 DEMONSTRATION

In order to show how the proposed system will function, the following demonstration has been made with practical example. This example can be said as the model for the real situations prevailing in accounting system of A.A.R.H.

Accounting system rely on operations that include data collection, entry of transactions, transaction analysis and authorization, preparing journals, posting to ledgers and balancing control accounts summarizing accounting data and preparing accounting statements.

Based on ;the above fact, the following example is taken how the proposed accounting system treats the operation of accounting in A.A.R.H.

Suppose the following transactions are occurred during the month of may, 1995 This example is presented in the form of table to make it more convenient -

Figure 5.17: Example Of Transactions

Voucher No	Month	Type of transaction (Classification)	Amount	Source of data	Description
1	May, 1995	Receivable (current asset)	25, 000	Rental contract form (some one rented a house from the agency for the house addressed in woreda 02 kebele 12 house No 1710)	
2	"	Expense	1000	Payment voucher	wages Expense
3		Liability	200	Telephone bill	Telephone charge to be paid
4		Fixed asset	20, 000	Payment Voucher	purchase of computer
5		cash (Current asset)	25,000	Receipt voucher	Rent collection from house woreda 02 , Keb 12 House No. 1710

Step 1 - entry of transaction

A Transaction is an event involving a change in resources, usually an exchange or transfer of an asset or a claim on an asset with offsetting changes in the status of assets or claims on assets. The concept that the changes must off set each other with in an entry is called the debits equal- credits or double - entry rule.

Accordingly, the following data entry will be made for the example specified in figure 5.16.

1. Rent Receivable account with full house location is

1410-00-02-12-00-710-17-00 25,000 Debit

4100 25,000 Credit

2. Cash is out for payment of wages. Then, wages expense is debited and cash is credited by same amount

5000-02 1000 Debit

1110 1000 Credit

3. The telephone bill is not paid, but the service is rendered to A.A.R.H. so it a liability for the Agency. The entry will be - Expense account debited and liability account credited.

6015-23 200 Debit

2120-02 200 Credit

4. Computer (Special equipment in classification of account name in A.A.R.H.) was purchased for amount of 20, 000 in cash . Therefore the data Entry will be as:

Fixed asset -special equipment account be debited and cash at bank account be credited .

In the form of account codes

1760 20,000 Debit

1110 20,000 Credit

5. Cash was collected from rent receivable an amount of birr 25,000 Then:

Account Receivable account..... Credited

and cash account be debited .

Then ; 1110.....25, 000 Debit

1410-00-02-12-00-1710-17-00 25,000 Credit

Step 2- How to enter the transaction in to the computer as per the designed system.

i) **Transaction entry and editing**

a) The first step is to start Dbase IV or entering into dbase IV.

b) After running the Dbase IV, the control center appears; Then highlight Application panel.

c) Highlight Accounty from application menu and press "Enter"

d) Run the program

e) After you run the program, six menus will appear as per presented in Figure 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.7.

Figure 5.1: MAIN MENU

CREATE	EDIT	UPDATE	REPORT	PRINT	EXIT

Figure 5.2: CREATE MENU

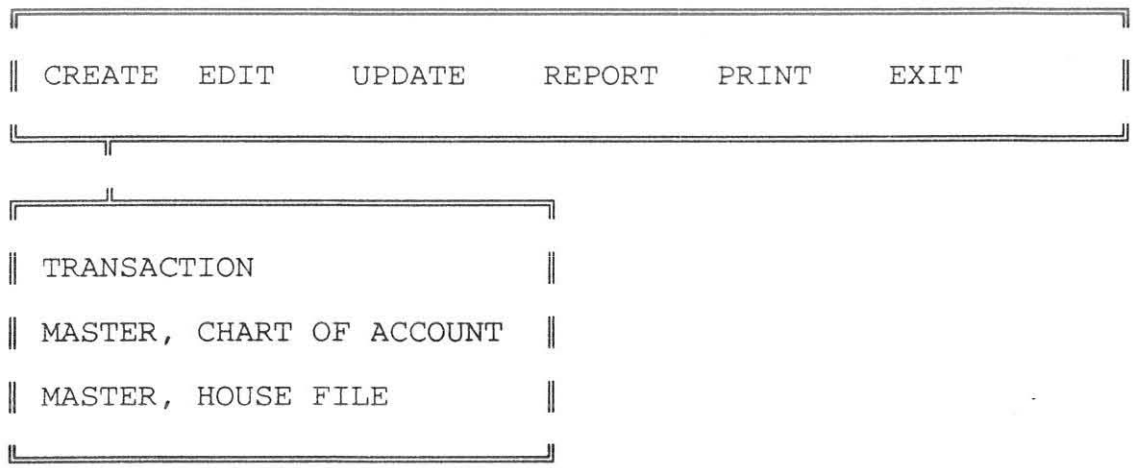


Figure 5.3: EDIT MENU

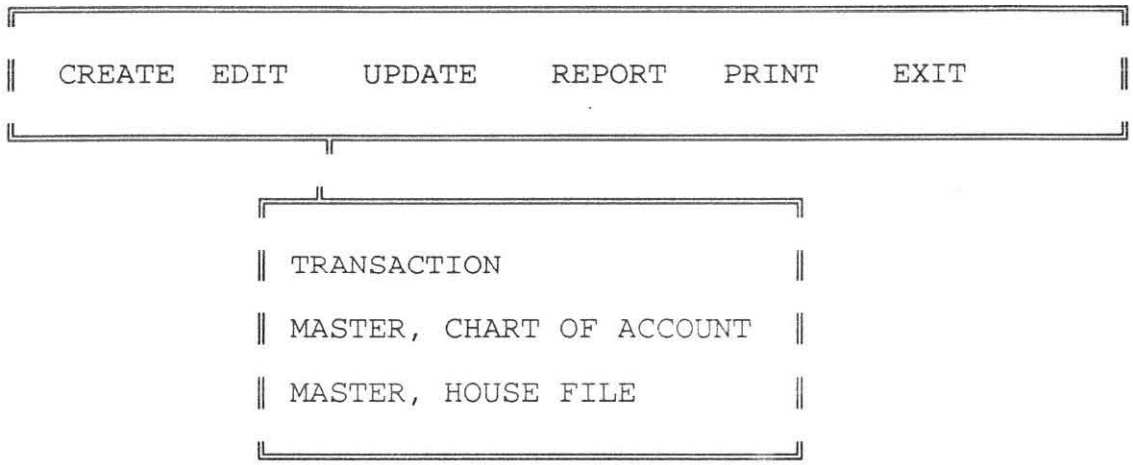


Figure 5.4: UPDATE MENU

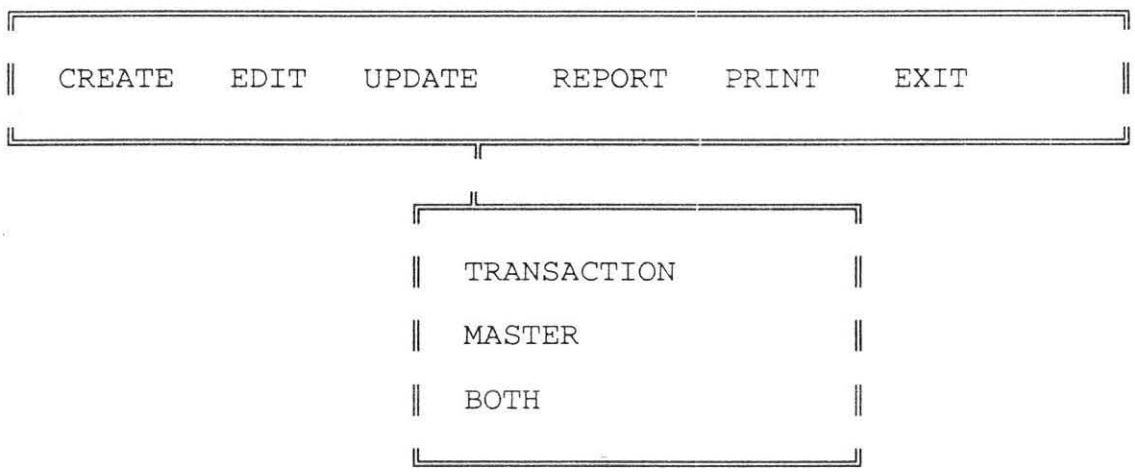


Figure 5.5: REPORT MENU

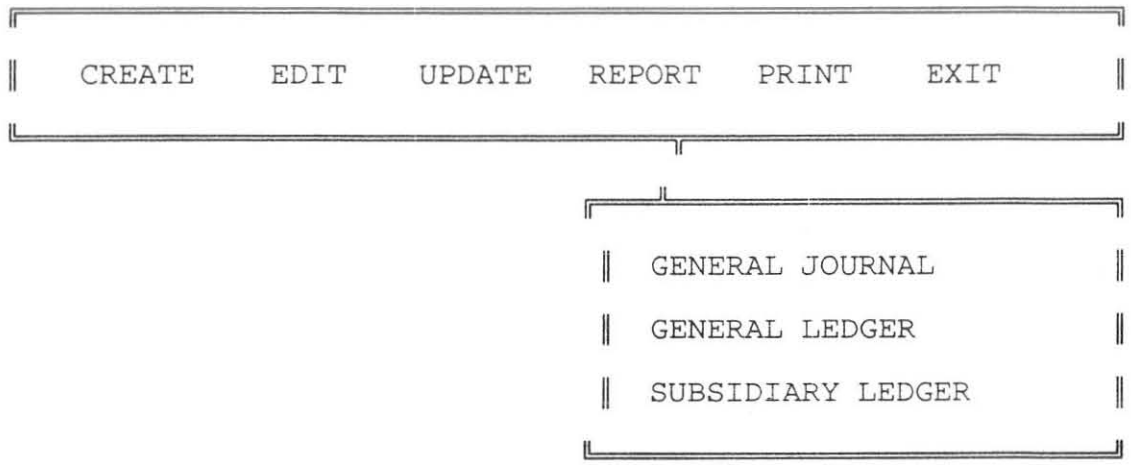


Figure 5.6: PRINT MENU

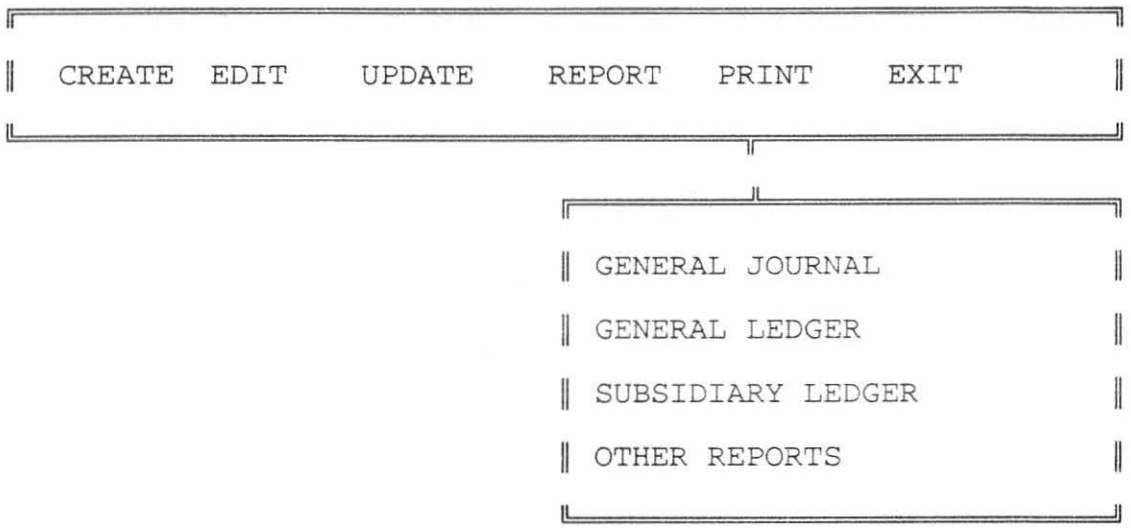
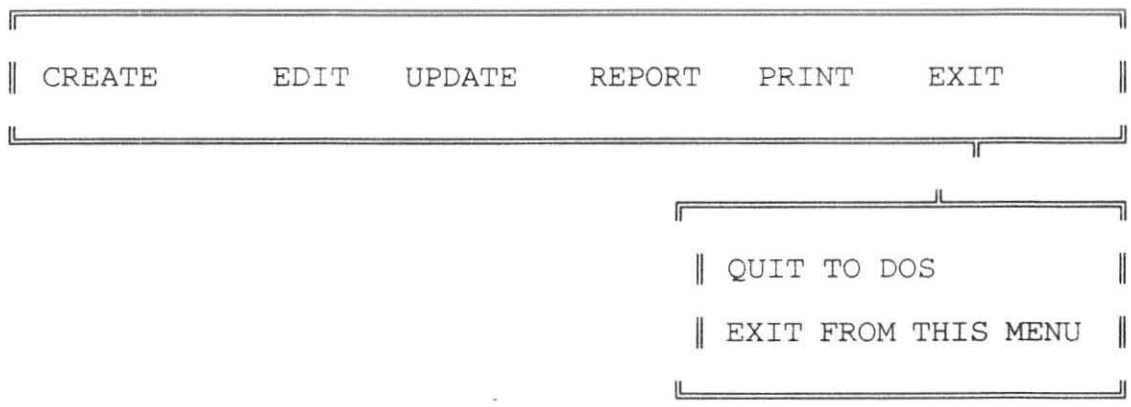


Figure 5.7: EXIT MENU



f) Select CREATE menu and three choices will appear under the menu. Select Transaction for creating a new transactions.

g) An input form in the screen will automatically appear. Then data entry can be performed in the form figure 5.14 as per the step 1, transaction entry rules.

h) After entering each transaction the system asks you to continue or stop data entry. If you select 'N' then it stops and returns back to the main menu.

i) If there is any transaction to be edited EDIT menu must be highlighted and select transaction under the menu. The type of form used in transaction creation is the same in editing transaction.

ii) **Transaction processing**

a) Before generating any type of report, the accounting transactions and master records must be updated at the end of each month. Therefore, one has to highlight UPDATE menu and select transaction and master one after an other. This task must be done at the end of each month. The system also warns that whether it is the end

of a month or not.

b) After all transaction and master records are updated then transaction journals will be the first report. Select GENERAL JOURNAL to generate journal from report menu. A journal is a collection of accounting entries for similar transactions. Its purpose is to make easier to record and post similar transactions.(The report is as Figure 5.17)

c) The next step is posting to ledgers: This is to mean that the accumulated entries in each journal are copied, or posted, to the accounts. Accounting statements are not prepared from the journals but from the accounts. Therefore, subsidiary ledgers are the next report to be generated from the system. To do so, select SUBSIDIARY LEDGER from report menu. This subsidiary ledger is a group of similar accounts such as all account receivable. Each subsidiary ledger consists of accounts posted from one or more principal journals. (see figure 5.18)

d) The general ledger which is the set of accounts from which the trial balance and financial statement emerge, summarized the subsidiary ledgers. The designed system is capable of producing the general ledger by selecting GENERAL LEDGER from REPORT menu (Figure 5.19)

e) The first performance requirement of accounting systems is to organize and summarized data. The listing of all the general ledger account names and their balances , from which accounting statements are prepared, is trial balance by selecting OTHER REPORTS from PRINT menu (see

Figure 5.20)

FIGURE 5.17: JOURNAL

ACCOUNTNO	SUB	VOUCHER	DESCREP	DEBIT	CREDIT
1410		1	RENT RECEIVABLE	25000.00	
4100		1	RENT INCOME		25000.00
5000	02	2	WAGES EXPENSE	1000.00	
1110		2	CASH AT BANK		1000.00
6015	23	3	TELEPHONE EXPENSE		200.00
2120	02	3	ACCOUNT PAYABLE		200.00
1760		4	SPECIAL EQUIPMENT	20000.00	
1110		4	CASH AT BANK		20000.00
1110		5	CASH AT BANK	20000.00	
1410		5	RENT RECEIVABLE		20000.00

FIGURE 5.18: SUBSIDIARY LEDGER

ACCOUNTNO	SUB	DESCREP	DEBIT	CREDIT	BALANCE
1110		CASH AT BANK		1000.00	-1000.00
1110		CASH AT BANK		20000.00	-20000.00
1110		CASH AT BANK	20000.00		20000.00
		TOTAL	20000.00	21000.00	-1000.00
1410		RENT RECEIVABLE	25000.00		25000.00

1410	RENT RECEIVABLE		20000.00	-20000.00
	TOTAL	25000.00	20000.00	5000.00
1760	SPACIAL EQUIPMENT	20000.00		20000.00
	TOTAL	20000.00		20000.00
2120 02	ACCOUNT PAYABLE		200.00	200.00
	TOTAL		200.00	200.00
4100	RENT INCOME		25000.00	25000.00
TOTAL			25000.00	25000.00
5000 02	WAGE EXPENSE	1000.00		1000.00
	TOTAL	1000.00		1000.00
6015 23	TELEPHONE EXPENSE	200.00		200.00
	TOTAL	200.00		200.00

FIGURE 5.19: GENERAL LEDGER

ACCOUNTNO	OPENING BAL	TOTALDEBIT	TOTALCREDIT	CLOSINGBAL
1110			1000.00	
1410		5000.00		
1760		20000.00		
2120			200.00	
4100			25000.00	
5000		1000.00		
6015		200.00		

FIGURE 5.20: TRIAL BALANCE

ACCOUNTNO	TOTALDEBIT	TOTALCREDIT
1110	20000.00	21000.00
1410	25000.00	20000.00
1760	20000.00	
2120		200.00
4100		25000.00
5000	1000.00	
6015	200.00	
TOTAL	66200.00	66200.00

5.4. HARDWARE AND SOFTWARE REQUIREMENT

In chapter 4 of this thesis a network system is proposed for an accounting information support system and there is recommendation of a database approach for the system.

The following are the hardware and software requirements for the proposed network system. The researcher discussed about the budget to acquire these requirements with the general manager of A.A.R.H. It is favorably accepted to allocate the necessary budget in order to implement the recommended system.

SPECIFICATIONS

Item	Quantity
FILE SERVER	1

Brand Name IBM Compatible

Case	Full Tower
Processor	Intel I486 DX2
Clock speed	66 MHZ
Upgradeability	Intel Pentium Overdrive
RAM	16 Mb
BUS	PCI
Free BUS slots	6-8
Secondary cache	512Kb.
Hard disks	1x1 Gb SCSI-2 Conner
	TP 1300-3,5 inch drives
Hard disks Controllers	1 x ADAPTEC 2940 PCI
Floppy disks	1x1.44 Mb.(3.5 inch)
Video Bus	PCI
Monitor	15" SVGA 72 Hz non interlaced
Ports	2 parallel 2 serial
Keyboard	Space saver - 102 key international
Voltage	220 V A/C-50 Hz
Plugs	Shuko (European standard)

WORKSTATIONS 8

Brand name	IBM compatible
Case	Desktop
Processor	Intel I486 or compatible
	(DXor DX2)
clock speed	40-50 Mhz
RAM	4 Mb
BUS	ISA
Free BUS slots	3-4

Secondary cache	128 KB
Hard disks	260 MB
Secondary cache	1x1.44 Mb (3.5 inch) -1x1.2(Mb) (5.25 inch)
Video Bus	14" SVGA 72 Hz non interlaced
Ports	1 parallel 2 serial
Keyboard	Space saver-102 key international
Mouse	Microsoft Mouse 2
Voltage	220v A/C-50 Hz
Plugs	Shuko (European standard)

HEAVY DUTY LASER PRINTER 1

Brand Name	Hewlett packard
Model	Laser jet 4 plus
Speed	12 ppm
Optional RAM	4 Mb
Parallel cable	Centronics
Voltage	220 V A/C-50 Hz
Plug	Shuko (European Standard)

SERVER UPS 1

Brand Name	IBM
Model	SMART UPS
Capacity	1, 250 VA
Software	Powershute for Netware3.1x
Voltage	220 V A/C -50 Hz
Plug	Shuko (European standard)

SOFTWARE

Novel Network (10 Users)		1
Tape backup software	Maynard NLM	1

OTHERS

LAN adapter	Intel Etherexpress 16-thin Ethernet	8
Connector		25
50 Ohms terminators		2
Cable (COAX RG 50U)		50 MT
Tape backup cartridges	Maynard DAT	8
	(Matching tape drive capacity)	
H/P Jet Direct Network Cards (Thin Ehernet Novel 3.1x)		1
Modem Robotics		8

5.5. SYSTEM IMPLEMENTATION PLAN

5.5.1. ESTABLISHMENT OF PLANS AND CONTROLS

A key concept relevant to the system implementation is that of project management. In order to adequately manage the implementation project, specific plans need to be developed. These plans should incorporate three major components: (1) a breakdown of the project into various phases (2) specific budgets applicable to each phase, and (3) specific time tables applicable to each project phase.

Figure F5.1 shows a Gantt Chart, which graphically depicts major activities of the designed systems implementation project. This chart shows both the actual and planned times for a given activity.

Figure F5.2 shows a network diagram, which depicts the

order in which the activities must be performed. For example, notice that employees cannot be trained until the software is selected.

5.5.2. Execution of Implementation Activities.

Execution of implementation activities involves the actual carrying out of the design plan. Typical activities during execution include training and selection of personnel, installation of new computer equipment, systems testing, standards development, documentation and file conversion.

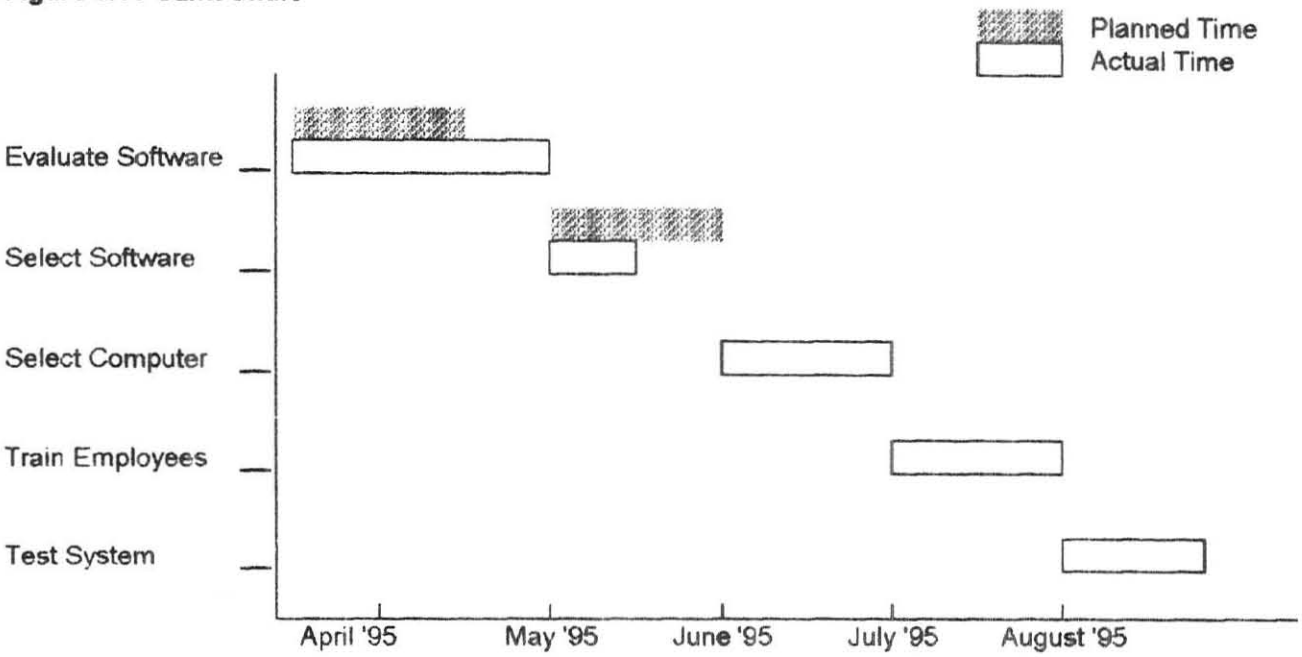
In carrying out the implementation plan, certain measures should be taken to provide a smooth transition and ensure acceptance on the party of the Agency's employees. It is the researcher's approach that management and the systems team make a formal announcement regarding the execution of the project.

5.5.2.1. Employee Training

Virtually any successful systems implementation requires that considerable attention be devoted to employee training. The existing workers in finance department and Zonal office accountant must be taught to work with new forms, reports and procedures.

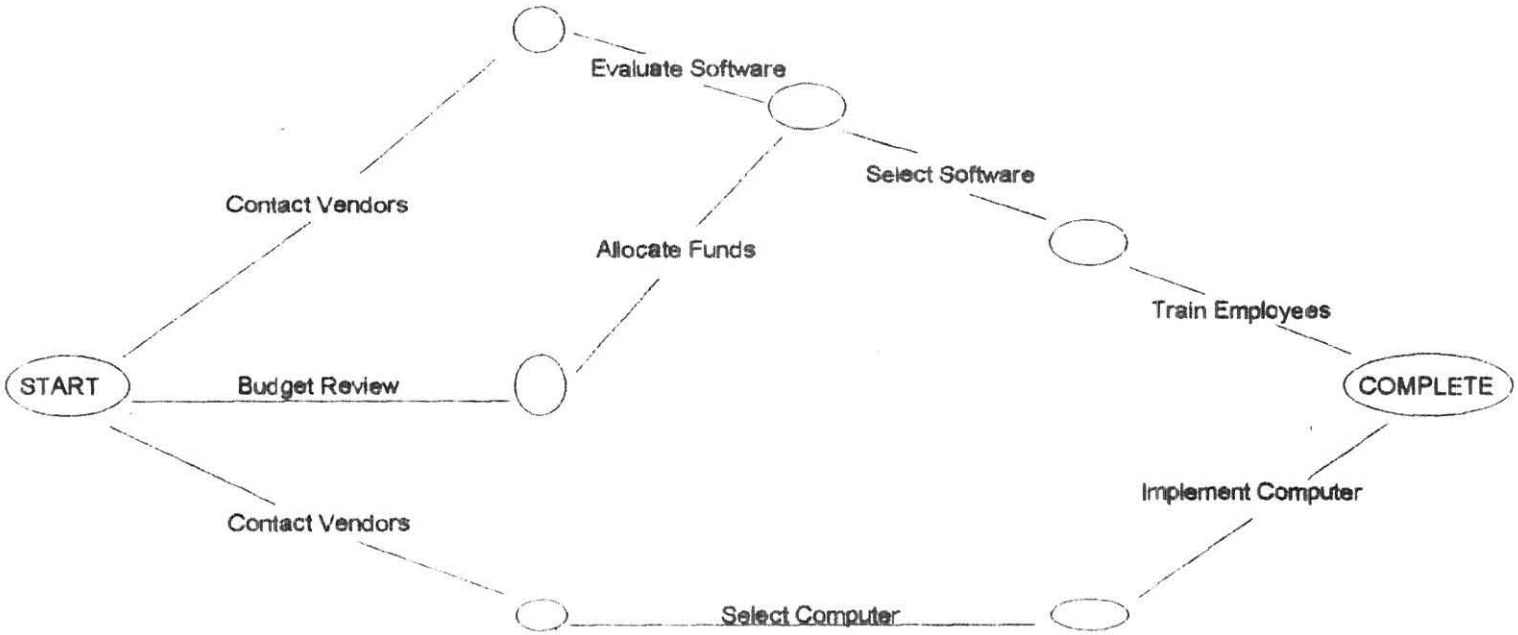
The important of adequate training can not be over emphasized. One should never assume that employees will learn to use the system by themselves. If employees are not adequately trained, it is likely that they will simply ignore the new system. Therefore, success of the entire systems development project is affected by the adequacy of training.

Figure 5.11 Gantt Chart



Please note that the prototype system is tested and can serve the desired objective.
Test system refers to the whole system when actual operation is started.

FIGURE F5.12 --- NETWORK DIAGRAM



CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1. CONCLUSION

Accounting Information system is one of the most exciting and dynamic fields in accounting today. Technological advances in hardware and commercial software are taking users of accounting information systems from a mainframe environment to one of mini- and desktop computers. This thesis, entitled Accounting information support system for Agency for the Administration of Rental Houses, presents information in the context of these technologies but maintains, as its foundation, the traditional concepts of double-entry accounting.

This semi-automated accounting system and batch-oriented system of A.A.R.H. creates a number of problems in the process of planning and decision making. These findings have encouraged to develop a prototype computer-based accounting information system for the Agency.

Accounting Information system designed in this study is for supporting managers of A.A.R.H. in their decision making process by providing all kinds of accounting information at their desk (terminal).

The proposed accounting system is based on micro computers. The dramatic technical evolution of micro computer system has brought about a major change in the economics of computer resources. It is now economically feasible to distribute processing power and tasks rather than to concentrate all processing power and tasks in a single large

mainframe or minicomputer. The development of computer-based application systems is now also within the economic reach of all organizations. Some of the advantages that might result from a distributed processing system approach to the development of computer-based application systems include increased system operating reliability and better service to users.

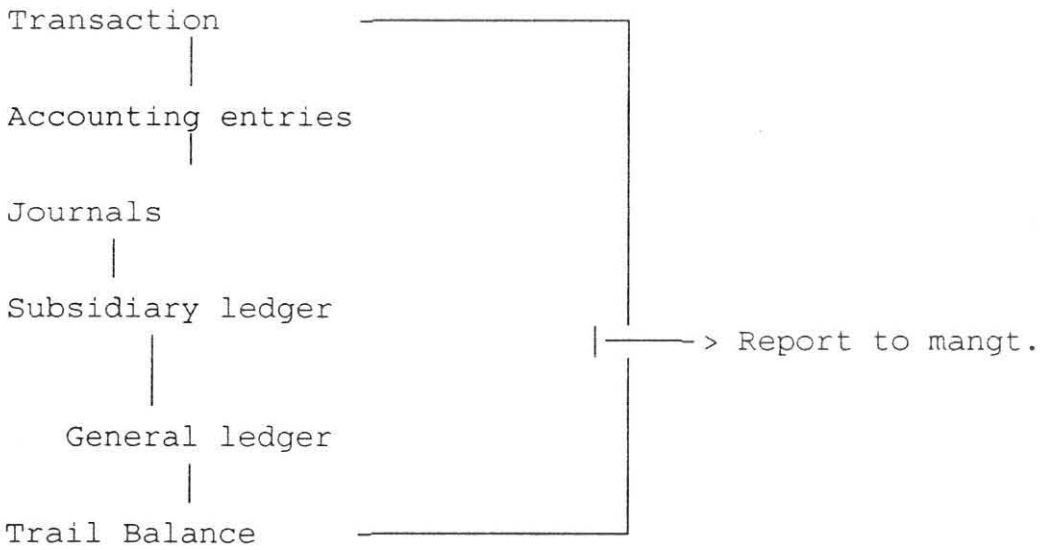
The software used for the proposed system is a data base management system. The data base software systems are intended to simplify and standardize the repetitive aspects of file maintenance and processing for the user. Among the data base software system the dBASE IV software is recommended for the designed accounting information system of A.A.R.H. The software is easy to learn and it has already been acquired by the Agency prior to this study. In addition, the software can serve for other management Information System application. In fact, some programming with dBASE IV has been done in order to meet the desired objectives (the Source Code is in Appendix 4).

An organization's accounting system consists of goals, policies, accounting principles, equipment, personnel, inputs and outputs, procedures and controls. Hence, the proposed computer-based accounting system for A.A.R.H. is designed on the basis of its goals, polices, accounting principles, equipment, personnel, inputs and outputs, and procedures and controls.

The computer-based accounting system will record, process, and report the information to the managers for use its to make decisions, control the risk inherent in their

pursuits, and plans for the future. These system will follow the agreed upon principles of accounting systems, and therefore will ensure that the financial information provided by the accounting system to the external users meets standards known as generally accepted accounting principles, and that the financial information used by internal mangers is relevant, complete and timely.

The whole set of possible outputs of the designed information system has not been discussed and presented in this thesis due to the time constraint. But attempts have been made to show how the new system works by designing the prototype databases. The accounting transaction processing organizes and summarizes data such that they can be found and incorporated into reports to management. These all have been shown in demonstration part using factual examples. The accounting data summarization steps, as discussed in the demonstration, are:



In conclusion, accounting data and information are

recognized as keys to increase productivity and to remaining competitive. Therefore, it was the researcher's starting point to give priority for studying the accounting system of A.A.R.H. so that the management of the Agency and the government at large can have economic information for institutional and national policy and planning. The remaining uncovered formats and reports in this thesis with the detailed necessary items would be seen and completed after the required hardware and software are acquired by A.A.R.H.

Thus, it is the researcher's belief that the on-line processing system designed in this study will show the tremendous changes for A.A.R.H. in providing up-to-date information which in turn is a base for proper economic planning and policy decision.

6.2. RECOMMENDATIONS

The following recommendations have been made in line with the findings of the study:

a) The proposed network system should be easy to use, and flexible enough to meet many different requirements as soon as it becomes operational;

b) The network system requires planning , including selecting a network manager, paying close attention to backup, assuring the security of data on the network, and ensuring that everyone who uses the network understands how to work;

c) The potential users of the system should be

trained about proposed system and this can be made before and after the installation of the computers;

d) The organization should initiate action to formulate and implement the new accounting information systems and services. It should also give a special attention for facilitating the necessary materials and financial resources for the system implementation;

e) The newly proposed accounting information system should run parallely with the old batch processing system for some time;

f) The complete system has to be tested and demonstrated after the required hardware and software are purchased and installed.

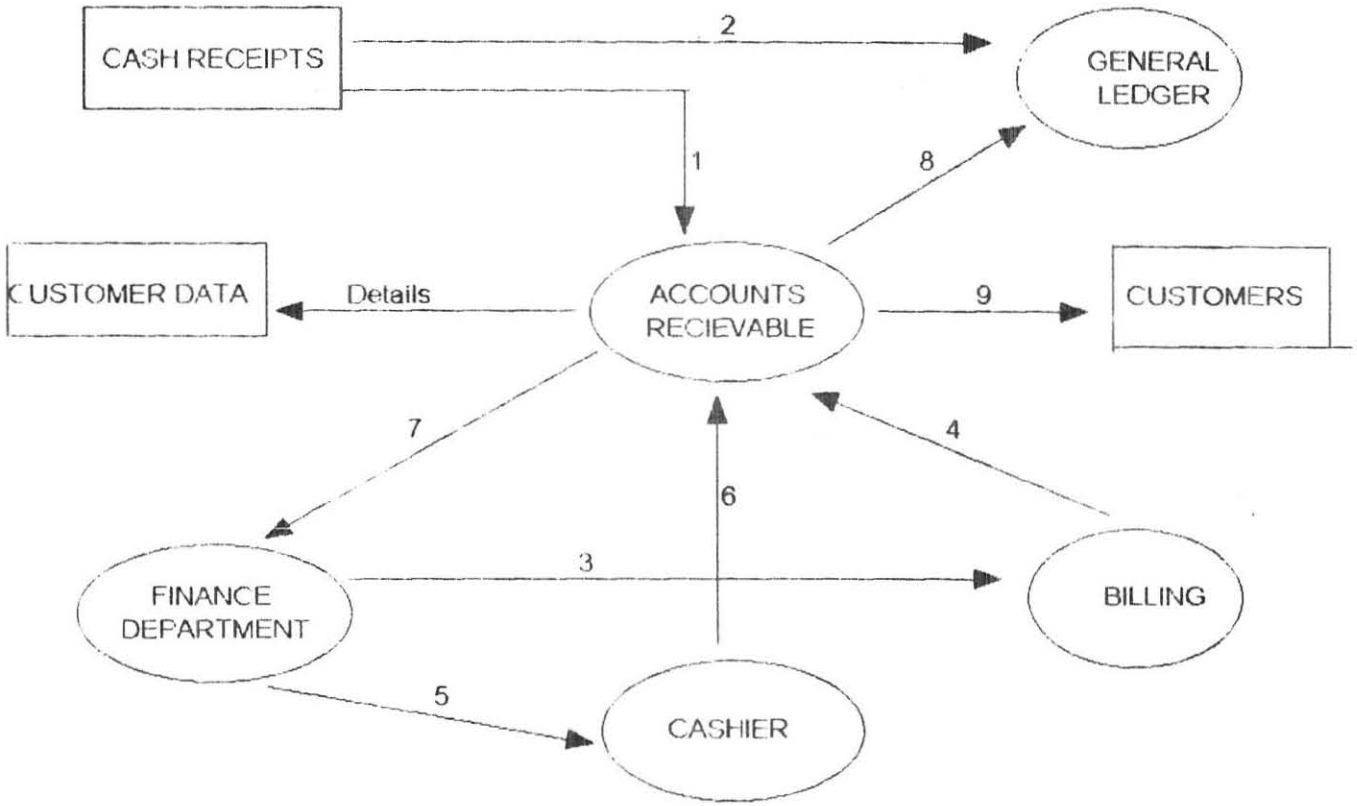
g) The billing system has to be designed in such a way that it can provide

- Total database for all buildings and houses and tenants (customers) Based on the data base, management information could be obtained, as and when and where it is needed.
- Delinquent list of tenants, aged outstanding rents for each Zone.
- Empty houses during a period in each Zone.
- Production of rental bills and distribution of bills to each respective zones.
- Statistical reports of new houses built in each Zone.

- Total number of house rented by government organizations, private organizations, individuals, diplomatic services, and zones.
- New house rented during the month in each zone.
- List of tenants who paid their tent during the month in each zone.
- This information is extremely useful for a multitude of purposes; Effective planning, controlling, and essential decision making are based on management information.

Data Flow Diagram

The data flow diagram which is shown below is a way of depicting the flow of data of the accounts recievable subsystem. This is intended for convenience to understand how the systems should work.



DATA FLOW KEY

1 Remittance advice
2 Control total
3 Credit advice
4 Credit memo
5 Write-off memo
6 Write-off advice
7 Aged trial balance
8 Cntrol total
9 Statement

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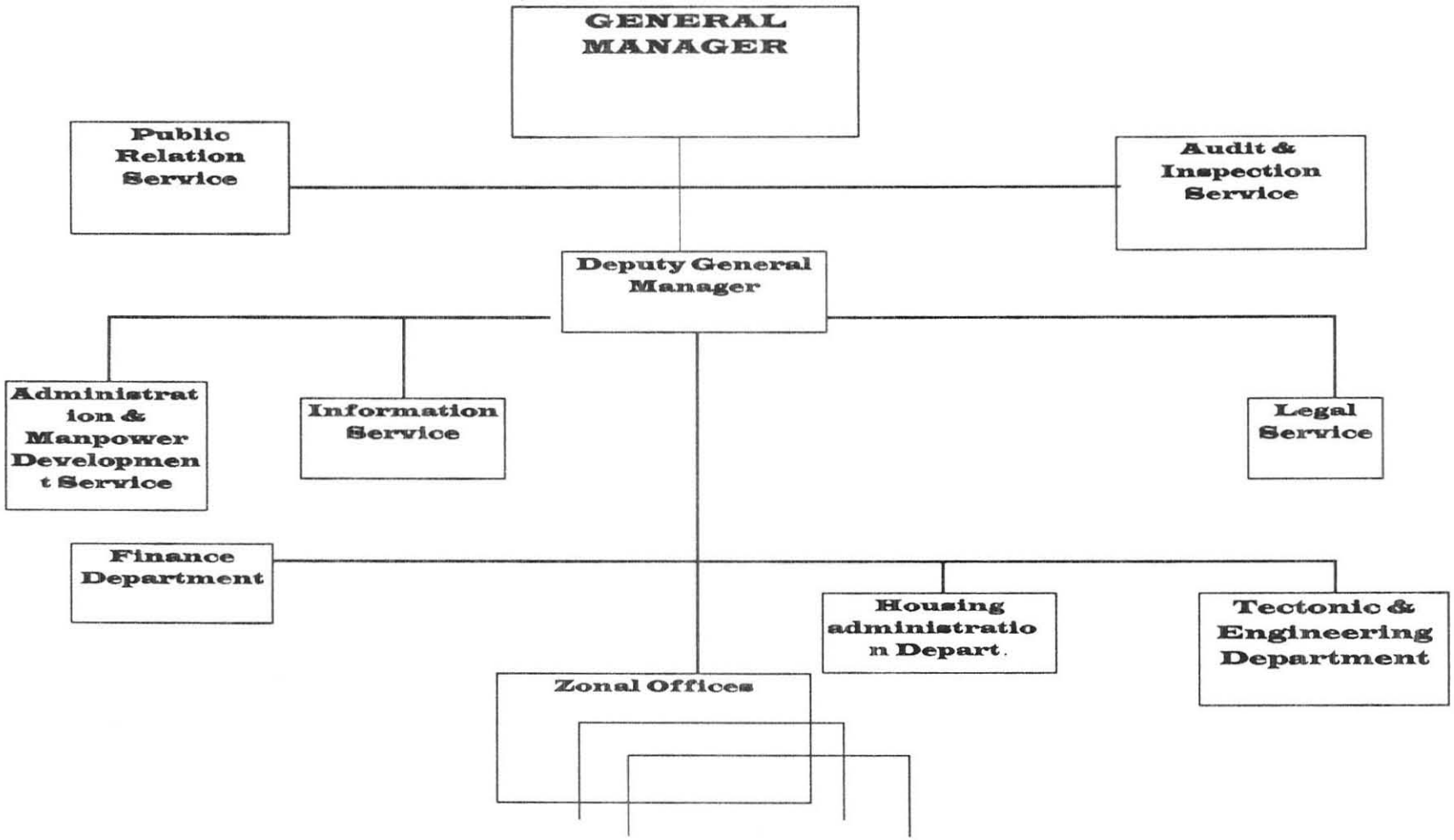
APPENDIX 1
ORGANIZATIONAL STRUCTURE OF A.A.R.H.



APPENDIX 2

CHART OF ACCOUNTS

1000	Assets
1100	Cash
1100	Cash at Bank
1110-01	By name of Bank & Account No.
02	
.	
.	
1120	Cash on hand
1120-01	By name of collector
02	
.	
.	
1130	Petty Cash Fund
1130-01	By name of petty cashier
02	
.	
.	
1140-01	Payroll fund
1140-01	
02	
.	

1200 Letter of credit

1200-01

02

.

1300 Marketable Securities

1300-01 By Type of Security

02

1400 Receivable

1410 Rent Receivable

1410-0101 By name of Zone and Woreda

(By each housing unit)

02

.

.

.

1411 Allowance for Doubtful accounts

1420 Accrued Receivable

1420-01 By type of accrued income

02

1430 Deposits (By Type of Deposit)

1430-01

1440 Prepayments (By type of payment)

1440-01

1450 Staff Debtors

1451 Regular staff

Debtors

1451-01 By name of Regular Staff Debtors

02

.

.

.

1452 Non-Regular Staff Debtors

1452-01 By name of Non-Regular staff debtors.

02

1460 Sundry Debtors

1460-01 By name of Debtors

02

.

.

1461 Allowance for doubtful accounts

1500 Inventories

1511 Cleaning and Sanitation

1511-01 By name of zone

02

1512 Printing & Stationery

1512-01 By name of Zone

02

1513 Spare Parts

1513-01 By name of Zone

02

1514 Uniforms

1514-01 By name of Zone

02

1515 Fuel and Lubricants

1515-01 By name of Zone

02

1516 Electrical Supplies

1516-01 By name of Zone

02

1517 Tyers & Tubes

1517-01 By name of Zone

02

1518 Building Materials

1518-01 By name of Zone

02

1519 Miscellaneous

1519-01 By name of Zone

02

1521 Work shop Materials

1522-01 By name of Zone

02

1522 Work shop Tools

1522-01 By name of zone

02

1530 Books & Publication

Code for Account Number from 1511 to 1530

Code	Name of Zone
01	Zone One
02	Zone Two
03	Zone Three

04 Zone Four

05 Zone Five

06 Central Store

07 Engineering & Technical DTP. Store

08 Garage Store

09 Matal workshop Store

10 Wood workshop Store

1600 Goods in Transit

1610 Materials and Supplies

1610-01 By Purchase order No.

02

1700 Fixed Assets

1710 House hold Furniture

1711 Allowance for Depreciation Houses Hold Furniture.

1720 Buildings

1721 Allowance for Depreciation Buildings

1730 Plant, Machinery & Equipment

1731 Allowance for Depreciation plant, Machinery & Equipment

1740 Office Furniture & Fixture

1741 Allowance for depreciation Office Furniture & Fixture

1750 -

1751 -

1760 Office Equipment

1761 Allowance for Depreciation office Equipment.

1770	Motor Vehicles
1771	Allowance for Depreciation Motor Vehicles
1780	Water pump & Generator
1781	Allowance for Depreciation water pump & Generator
1790	Other Deferred Capital Costs
1791	Allowance for depreciation other Deferred capital costs.
1800	Work in progress
1810	WIP (New building on construction)
1810-01	By name of project
02	
1820	Building Improvement
1820-01	By name of Building(or Location)
02	
1830	Material production
1900	Branches
1924	Dire Dawa
01	Cash transfer
02	Material transfer
03	Collection or payment on behalf of branch or Head Office
2000	Liabilities

2110 Trade creditors

2110-01 By name of supplier

02

.

2120 Sundry creditors

2120-01 By name of creditor

02

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2130 Contractors payable

2130-01 By name of Contractor

02

2140 Differed Revenue

(codes are similar to 1410)

2140-01

02

2150 Unclaimed salaries and wages

2151 Unclaimed salaries of Regular Employees

2151-01 By name of Regular staff

02

2152 Unclaimed wages of Non-regular employee

2152-01 By name of Non-regular staff

02

Codes of Account numbers 2151 and 2152 are similar to 1451 and 1452.

2160		Current Maturity of long-term loan.
2170		Accrued Liabilities (By type of expense)
2170-01		
	02	
	.	
	.	
2200		Payroll Taxes and contribution with held.
2200-01		Income Taxes with held
	02	Pension
	03	Sport contribution
	04	Labour union fee with held
	05	Trift association
	06	Insurance
	07	-
	08	-
	09	-
2300		Government Taxes
2300-01		Profit Tax
	02	Sanitation Tax
	03	Municipal rental Tax
	04	Turn over tax
	05	Inland revenue rental tax
	06	Capital charge
	07	-
	08	-
	09	-
2400		Funds on Deposit
2410		Guarantee Deposit-Rent

2410-0101 By name of Zone and Woreda

(similar to 1410)

2420 Guarantee deposit-others

2430 Bid Bonds

2440 Performance bonds

2450 -

2460 -

2500 Trust fund

2510 Insurance

2520 Owners and Repossessor

2520-01 By name of owners

02

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2530 Trust fund for individuals

2530-01 By name of Individual

02

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2600 Contingent Liabilities

2700 long-term Debts

2710 Local long-term debts

2710-01 By name of Debtors

02

2720		Foreign Long-term debts
2720-01		By name of debtors
	02	
	03	
	04	
	05	
	06	
2800		Compensation for ex-house owners
2801-01		By name of EX-house owner
	02	
	.	
	.	
	.	
3000		Capital
3100		State capital
3200		Reserve fund
3300		Profit and Loss
3400		Prior years Adjustment
3500		Head office account
3524		Dire Dawa
3524-01		Cash transfer
	02	Material transfer
	03	Collection or payment on behalf of Head Office or Branch.

4000 Revenue

4100 Rent income

4100-0101 By name of Zone and woreda

02

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4200 Other income

4200-01 By type of Income

02

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5000 Direct Expense

5010 Direct Labour

5010-0101 By name of Zone & Woreda

02

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.

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5020 Direct Material

5020-0101 By name of Zone & Woreda

02

5030 Maintenance overhead

5030-0101 By name of Zone & woreda

02

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,

5040 Contract works(Maintenance)

5040-0101 By name of Zone & Woreda

6000	General and Administrative Expenses
6011	Managers Office
6012	Housing Administration Department
6013	Technic Department
6014	Finance Department
6015	Administration Service
6016	Information Service
6017	Audit and Inspection Service
6018	Public Relation Service
6019	Legal Service
6020	-
6021	Zone One
6022	Zone Two
6023	Zone Three
6024	Zone Four
6025	Zone Five
6026	-
6027	-

Codes for Account Numbers from 6011 to 6026

Code	Name of Expenses
01-09 salaries & related	
01	Salaries
02	Wages
03	Pension contribution (6%)
04	Over time

	05	Allowances
	06	Medical Expenses
	07	Educational & Training
	08	Others (Related to salaries and wages)
11-19	Materials & Supplies	
	11	Sanitation Supplies
	12	Stationery Supplies
	13	Spare parts
	14	Uniforms
	15	Fuel and Lubricants
	16	Electrical Supplies
	17	Tyres & Tubes
	18	Building Materials
	19	Other Materials & Supplies
	20	Work shop Materials & supplies
21-25	Utilities	
	21	Electricity consumption
	22	Water consumption
	23	P.T.T and Telex
	24	Freight & Transportation
	25	Other Utilities
26-30	Maintenance Services (by outsider contractors)	
	26	Plant, Machinery & Equipment
	27	Office Equipment
	28	Motor vehicles
	29	Lift Maintenance
	30	Other repairs

31-38 Government Taxes

31	Profit tax
32	Sanitation Taxes
33	Municipality Rental taxes 5%
34	Turn over Tax
36	Capital Charge
37	License & Registration tax
38	Other tax
39	-

40-55 Sundry Expenses

41	Bad Debts expenses
42	Insurance Expense
43	Discount & Commissions
44	Advertising
45	Entertainment
46	Legal Expenses
47	Periodical
48	Depreciation & Amortization
49	Donation & Contribution
50	Bank Charges
51	Audit Fee
52	Interest Expense
53	Others

APPENDIX 3

Source Documents /Input Forms

RENT RECEIPT

No. _____

TOWN_____ ZONE _____ KEFTEGNA __ KEBELE __ HOUSE No. _____

PAYER'S NAME _____ CONTRACT No. _____

RENT FOR THE MONTH OF _____

RENT IN FIGURES _____ RENT IN WORDS_____

CHEQUE No. _____

_____

FOR ACCOUNTING USE ONLY

_____

ACCOUNT No. Dr. Cr. COLLECTOR'S SIGNATURE

_____

COLLECTOR'S NAME

1st Copy white - Lessee FOR ADDIS ABABA ONLY
2nd Copy pink - Accounts
3rd Copy Blue - pad

OTHER RECEIPT VOUCHER

No. _____

TOWN _____ ZONE ____ KEFTEGNA ____ KEBELE ____ HOUSE No._____

Received from _____

Payment for _____

	Account No.	Amount
Guarantee deposit		
Water Charge		
Service Charge		
Interest Charge		
Damaged property Charge		
House Sales		
Others		
Total		

Amount in Words _____

Cheque No. _____

_____

Collector's Sig.

_____

Collector's Name

Note 1. This receipt is not valid for house rent collection
2. Refunds are made only on presentation of original receipt
3. Cheque are accepted subject to bank clearance
1st Copy White - Customer
2nd Copy Pink - Accounts
3rd Copy Blue - Pad

Cheque Payment Voucher

No. _____
Date _____

Pay to _____

Purchase Order Number	Goods Rec'd Memo No.	Supplier's invoice No.	Articles or Service	Amount	

Total

Prepared by _____

Checked by _____

Internal Auditor _____

Check No _____

Date _____

Check rec'd _____

Discount

Amount Payable

(Inwords _____)

_____
Date

Authorized _____ Approved _____

Account Distribution

G.L. A/C No.	DEBIT		CREDIT		POSTED BY	SUB. A/C No.	DEBIT		CREDIT		POSTED BY

PETTY CASH PAYMENT REGISTER

Branch _____ Page __

Date	PAYMENT V. NO.	PARTICULAR	A/C No.	ESTABLISHED PETTY CASH FUND		PAID		BALANCE	

Prepare by _____ Checked by_____ Posted by _____

Date _____ Date _____ Date _____

Approved by _____

Date _____

APPENDIX 4
Source Code

```
**********************************ACCOUNTY.PRG************
*****************
SET STATUS OFF
SET TALK OFF

CLEAR
DO Def_mens
ON PAD CREATE OF MAIN ACTIVATE POPUP CREATE_pop
ON PAD EDIT OF Main ACTIVATE POPUP EDIT_pop
ON PAD UPDATE OF Main ACTIVATE POPUP UPDATE_pop
ON PAD REPORT OF MAIN ACTIVATE POPUP REPORT_POP
ON PAD PRINT OF MAIN ACTIVATE POPUP PRINT_POP
ON PAD EXIT OF MAIN ACTIVATE POPUP EXIT_POP

ON SELECTION POPUP EXIT_POP DO EXITPRO
ON SELECTION POPUP CREATE_POP DO CREATEPRO
ON SELECTION POPUP EDIT_POP DO EDITPRO
ON SELECTION POPUP REPORT_POP DO REPORTPRO
ON SELECTION POPUP PRINT_POP DO PRINTPRO
ON SELECTION POPUP UPDATE_POP DO UPDATEPRO

ACTIVATE MENU MAIN PAD CREATE
CLEAR ALL
SET TALK ON
SET STATUS ON
RETURN

PROCEDURE DEF_MENS
*-- MAIN MENU
DEFINE MENU MAIN
DEFINE PAD CREATE OF MAIN PROMPT "CREATE" AT 2,4
DEFINE PAD EDIT OF MAIN PROMPT "EDIT" AT 2,16
DEFINE PAD UPDATE OF MAIN PROMPT "UPDATE" AT 2,28
DEFINE PAD REPORT OF MAIN PROMPT "REPORT" AT 2,38
DEFINE PAD PRINT OF MAIN PROMPT "PRINT" AT 2,46
DEFINE PAD EXIT OF MAIN PROMPT "EXIT" AT 2,58

*-- POPUP CREATE_POP
DEFINE POPUP CREATE_POP FROM 3,4 TO 7,30
DEFINE BAR 1 OF CREATE_POP PROMPT "TRANSACTION"
DEFINE BAR 2 OF CREATE_POP PROMPT "MASTER, CHART OF
ACCOUNT"
DEFINE BAR 3 OF CREATE_POP PROMPT "MASTER, HOUSE FILE"

*-- POPUP EDIT_POP
DEFINE POPUP EDIT_POP FROM 3,16 TO 7,45
DEFINE BAR 1 OF EDIT_POP PROMPT "TRANSACTION"
DEFINE BAR 2 OF EDIT_POP PROMPT "GENERAL LEDGER MASTER"
DEFINE BAR 3 OF EDIT_POP PROMPT "HOUSE FILE"

*-- POPUP UPDATE_POP
DEFINE POPUP UPDATE_POP FROM 3,28 TO 6,60
DEFINE BAR 1 OF UPDATE_POP PROMPT "TRANSACTION"
DEFINE BAR 2 OF UPDATE_POP PROMPT "MASTER"
```

```
DEFINE BAR 3 OF UPDATE_POP PROMPT "BOTH"

*-- POPUP REPORT_POP
DEFINE  POPUP REPORT_POP FROM 3,35 TO 7,70
DEFINE BAR 1 OF REPORT_POP PROMPT "GENERAL JOURNAL"
DEFINE BAR 2 OF REPORT_POP PROMPT "GENERAL LEDGER"
DEFINE BAR 3 OF REPORT_POP PROMPT "SUBACCSIDARY LEDGER"


*-- POPUP PRINT_POP
DEFINE POPUP PRINT_POP FROM 3,42 TO 8,76
DEFINE BAR 1 OF PRINT_POP PROMPT "GENERAL JOURNAL"
DEFINE BAR 2 OF PRINT_POP PROMPT "GENERAL LEDGER"
DEFINE BAR 3 OF PRINT_POP PROMPT "SUBACCSIDARY LEDGER"
DEFINE BAR 4 OF PRINT_POP PROMPT "OTHER REPORTS"


*-- POPUP EXIT_POP
DEFINE POPUP EXIT_POP FROM 3,48 TO 6,76
DEFINE BAR 1 OF EXIT_POP PROMPT "QUIT TO DOS"
DEFINE BAR 2 OF EXIT_POP PROMPT "EXIT FROM THIS MENU"
RETURN

PROCEDURE EXITPRO
DO CASE
     CASE BAR() = 1
          QUIT
     CASE BAR() = 2
          DEACTIVATE MENU
ENDCASE
RETURN

PROCEDURE CREATEPRO
DO CASE
     CASE BAR() = 1
     CLEAR
     close database
     DO APPN
          RETURN
          CLEAR
     CASE BAR() = 2
     CLEAR
     CLOSE DATABASE
          CLEAR
          CLOSE DATABASE
          DO APPN1
               RETURN
          CLEAR
          RETURN

     CASE BAR() = 3
     CLEAR
     CLOSE DATABASE
          DO APPN2
          CLEAR
          RETURN

ENDCASE
```

```
RETURN
     PROCEDURE APPN
          USE TRANS ORDER ACCTNO
          GOTO BOTTOM
          ACCTNO = ACCTNO
          SUBACC = SUBACC
          WOREDA = WOREDA
          KEBELE = KEBELE
          HOSTNO = HOSTNO
          HOUSENO = HOUSENO
          APARTNO = APARTNO
          BED = BED
          VOUNCHN = VOUNCHN
          VOUCHER = VOUCHER
          DESCR = DESCR
          DEBIT = DEBIT
          CREDIT = CREDIT
          STORE "     " TO ACCTNO, SUBACC, HOUSENO, VOUNCHN
          STORE "  " TO WOREDA, KEBELE, HOSTNO, BED, VOUCHER
          STORE "    " TO APARTNO
          STORE "                    " TO DESCR
          STORE 0 TO DEBIT, CREDIT
          APPEND BLANK
          @ 1,14 TO 3,41 DOUBLE
          @ 4,3 TO 16,79 PANEL
          @ 2,17 SAY "CREATION OF TRANSACTION"
          @ 6,15 SAY "VOUCHER NO: " GET M->VOUNCHN PICTURE
"XXXX"
          @ 6,44 SAY "MONTH: " GET M->VOUCHER PICTURE "XX"
          @ 8,6 SAY "ACCOUNT NO: " GET M->ACCTNO PICTURE
"XXXX"
          @ 8,27 SAY "SUB ACC.: " GET M->SUBACC PICTURE
"XXXX"
          @ 10,6 SAY "WOREDA: " GET M->WOREDA PICTURE "XX"
          @ 10,17 SAY "KEBELE: " GET M->KEBELE PICTURE "XX"
          @ 10,29 SAY "HOS.No.: " GET M->HOSTNO PICTURE "XX"
          @ 10,41 SAY "HOUSE No: " GET M->HOUSENO PICTURE
"XXXX"
          @ 10,55 SAY "APR.No: " GET M->APARTNO PICTURE "XXX"
          @ 12,55 SAY "BED: " GET M->BED PICTURE "XX"
          @ 14,6 SAY "DESCRIPTION: " GET M->DESCR PICTURE
"XXXXXXXXXXXXXXXXXX"
          @ 14,42 SAY "DEBIT: " GET M->DEBIT PICTURE
"999999.99"
          @ 14,60 SAY "CREDIT: " GET M->CREDIT PICTURE
"999999.99"
          READ
          REPLACE ACCTNO WITH M->ACCTNO, SUBACC WITH
M->SUBACC, WOREDA WITH M->WOREDA,;
               KEBELE WITH M->KEBELE, HOSTNO WITH M->HOSTNO,
HOUSENO WITH M->HOUSENO,;
               APARTNO WITH M->APARTNO, BED WITH M->BED,
VOUNCHN WITH M->VOUNCHN,;
               VOUCHER WITH M->VOUCHER, DESCR WITH M->DESCR,
DEBIT WITH M->DEBIT, CREDIT WITH M->CREDIT
          GO BOTTOM
          DELETE FOR ACCTNO = "    "
          PACK
```

```
          CLEAR

          WAIT "DO YOU WISH TO CREATE AN OTHER? (Y/N) " TO
M_Y
          IF UPPER(M_Y) = "Y"
               clear
             DO APPN
               clear
          ENDIF
          CLEAR
RETURN TO APPN
     PROCEDURE APPN1
          USE GLMASTER ORDER ACCOUNTNO
          GOTO BOTTOM
          ACCOUNTNO = ACCOUNTNO
          SUB = SUB
          OPNINGBAL = OPNINGBAL

          STORE "     " TO ACCOUNTNO, SUB
          STORE 0 TO OPNINGBAL
          APPEND BLANK
          @ 1,14 TO 3,55 DOUBLE
          @ 4,3 TO 14,79 PANEL
          @ 2,27 SAY "CREATION OF MASTER FILE "

          @ 8,6 SAY "ACCOUNT NO: " GET M->ACCOUNTNO PICTURE
"XXXX"
          @ 10,6 SAY "SUB ACC.: " GET M->SUB PICTURE "XXXX"
          @ 12,6 SAY "OPENING BLALANCE: " GET M->OPNINGBAL
PICTURE "9999999999.99"
          READ
          REPLACE ACCOUNTNO WITH M->ACCOUNTNO, SUB WITH
M->SUB, OPNINGBAL WITH M->OPNINGBAL
          GO BOTTOM
          DELETE FOR ACCOUNTNO = "     "
          PACK
          CLEAR

          WAIT "DO YOU WISH TO ADD AN OTHER? (Y/N) " TO M_Y
          IF UPPER(M_Y) = "Y"
          clear
             DO APPN1
          CLEAR
          ENDIF
          CLEAR
RETURN TO APPN1
     PROCEDURE APPN2
          USE RECFILE
          GOTO BOTTOM
          ZONE = ZONE
          WOREDA = WOREDA
          KEBELE = KEBELE
          HOUSENO = HOUSENO
          HSL = HSL
          APT = APT
          BED = BED
          TENANTNAME = TENANTNAME
          RENT = RENT
```

```
          STORE "   " TO ZONE, WOREDA, KEBELE
          STORE "      " TO  APT, BED, HSL, HOUSENO
          STORE "                                    " TO
TENANTNAME
          STORE 0 TO RENT
          APPEND BLANK
          @ 1,14 TO 3,61 DOUBLE
          @ 4,3 TO 16,79 PANEL
          @ 2,25 SAY "CREATION OF MASTER HOUSE FILE"
          @ 6,15 SAY "ZONE: " GET M->ZONE PICTURE "XX"
          @ 6,44 SAY "WOREDA: " GET M->WOREDA PICTURE "XX"

          @ 8,6 SAY "KEBELE: " GET M->KEBELE PICTURE "XX"
          @ 8,27 SAY "HOSTEL: " GET M->HSL PICTURE "XXXX"
          @ 10,25 SAY "APARTMENT: " GET M->APT PICTURE "XXXX"
          @ 12,6 SAY "BED: " GET M->BED PICTURE "XXXX"
          @ 12, 25 SAY "HOUSE NO: " GET M->HOUSENO PICTURE
"XXXX"

          @ 14,6 SAY "TENANT NAME: " GET M->TENANTNAME
PICTURE "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
          @ 14,57 SAY "RENT: " GET M->RENT PICTURE
"999999.99"
          READ
          REPLACE ZONE WITH M->ZONE, WOREDA WITH M->WOREDA,;
               KEBELE WITH M->KEBELE, HSL WITH M->HSL,
HOUSENO WITH M->HOUSENO,;
               APT WITH M->APT, BED WITH M->BED,;
               TENANTNAME WITH M->TENANTNAME, RENT WITH
M->RENT
          GOTO BOTTOM
          DELETE FOR ZONE = "  "
          PACK
          CLEAR

          WAIT "DO YOU WISH TO CREATE AN OTHER? (Y/N) " TO
M_Y
          IF UPPER(M_Y) = "Y"
               clear
             DO APPN2
               clear
          ENDIF
          CLEAR
RETURN TO APPN2

PROCEDURE EDITPRO
DO CASE
     CASE BAR() = 1
     CLEAR
     CLOSE DATABASE
     USE TRANS
     CLEAR
        DO EDIT1
        CASE BAR() = 2
        CLEAR
        CLOSE DATABASE
        USE GLMASTER
        DO EDIT2
```

```
      CASE BAR() = 3
      CLEAR
      CLOSE DATABASE
      USE RECFILE
      CLEAR
      DO EDIT3


ENDCASE
RETURN
      PROCEDURE EDIT1
            USE TRANS ORDER ACCTNO
      ACCEPT "VOUCHER NUMBER = " TO EDITM
      LOCATE FOR VOUNCHN = M->EDITM

            ACCTNO = ACCTNO
            SUBACC = SUBACC
            WOREDA = WOREDA
            KEBELE = KEBELE
            HOSTNO = HOSTNO
            HOUSENO = HOUSENO
            APARTNO = APARTNO
            BED = BED
            VOUNCHN = VOUNCHN
            VOUCHER = VOUCHER
            DESCR = DESCR
            DEBIT = DEBIT
            CREDIT = CREDIT
            @ 1,14 TO 3,41 DOUBLE
            @ 4,3 TO 16,79 PANEL
            @ 2,17 SAY "EDITING OF TRANSACTION"
            @ 6,15 SAY "VOUCHER NO: " GET M->VOUNCHN PICTURE
"XXXX"
            @ 6,44 SAY "MONTH: " GET M->VOUCHER PICTURE "XX"
            @ 8,6 SAY "ACCOUNT NO: " GET M->ACCTNO PICTURE
"XXXX"
            @ 8,27 SAY "SUB ACC.: " GET M->SUBACC PICTURE
"XXXX"
            @ 10,6 SAY "WOREDA: " GET M->WOREDA PICTURE "XX"
            @ 10,17 SAY "KEBELE: " GET M->KEBELE PICTURE "XX"
            @ 10,29 SAY "HOS.No.: " GET M->HOSTNO PICTURE "XX"
            @ 10,41 SAY "HOUSE No: " GET M->HOUSENO PICTURE
"XXXX"
            @ 10,55 SAY "APR.No: " GET M->APARTNO PICTURE "XXX"
            @ 12,55 SAY "BED: " GET M->BED PICTURE "XX"
            @ 14,6 SAY "DESCRIPTION: " GET M->DESCR PICTURE
"XXXXXXXXXXXXXXXXXX"
            @ 14,42 SAY "DEBIT: " GET M->DEBIT PICTURE
"999999.99"
            @ 14,60 SAY "CREDIT: " GET M->CREDIT PICTURE
"999999.99"
            READ
            REPLACE ACCTNO WITH M->ACCTNO, SUBACC WITH
M->SUBACC, WOREDA WITH M->WOREDA,;
                  KEBELE WITH M->KEBELE, HOSTNO WITH M->HOSTNO,
HOUSENO WITH M->HOUSENO,;
                  APARTNO WITH M->APARTNO, BED WITH M->BED,
```

```
VOUNCHN WITH M->VOUNCHN,;
                VOUCHER WITH M->VOUCHER, DESCR WITH M->DESCR,
DEBIT WITH M->DEBIT, CREDIT WITH M->CREDIT
          DELETE FOR ACCTNO = "     "
          PACK
          CLEAR

          WAIT "DO YOU WISH TO EDIT AN OTHER? (Y/N) " TO M_Y
          IF UPPER(M_Y) = "Y"
               clear
             DO EDIT1
               clear
          ENDIF
          CLEAR
RETURN TO EDIT1

     PROCEDURE EDIT2
          USE GLMASTER ORDER ACCOUNTNO

     ACCEPT "ACCOUNT NUMBER = " TO MASTED
     LOCATE FOR ACCOUNTNO = M->MASTED
     CLEAR

          ACCOUNTNO = ACCOUNTNO
          SUB = SUB
          OPNINGBAL = OPNINGBAL
          @ 1,14 TO 3,55 DOUBLE
          @ 4,3 TO 14,79 PANEL
          @ 2,27 SAY "EDITING OF MASTER FILE "

          @ 8,6 SAY "ACCOUNT NO: " GET M->ACCOUNTNO PICTURE
"XXXX"
          @ 10,6 SAY "SUB ACC.: " GET M->SUB PICTURE "XXXX"
          @ 12,6 SAY "OPENING BLALANCE: " GET M->OPNINGBAL
PICTURE "9999999999.99"
          READ
          REPLACE ACCOUNTNO WITH M->ACCOUNTNO, SUB WITH
M->SUB, OPNINGBAL WITH M->OPNINGBAL

          DELETE FOR ACCOUNTNO = "     "
          PACK
          CLEAR

          WAIT "DO YOU WISH TO EDIT AN OTHER? (Y/N) " TO M_Y

          IF UPPER(M_Y) = "Y"
          clear
             DO EDIT2
          CLEAR
          ENDIF
          CLEAR
RETURN TO EDIT2
     PROCEDURE EDIT3
          USE RECFILE
     ACCEPT "WOREDA =  " TO HOUSED
     ACCEPT   "KEBELE = " TO HOUSED1
     LOCATE FOR WOREDA = m->HOUSED .AND. KEBELE = M->HOUSED1
```

```
            ZONE = ZONE
            WOREDA = WOREDA
            KEBELE = KEBELE
            HOUSENO = HOUSENO
            HSL = HSL
            APT = APT
            BED = BED
            TENANTNAME = TENANTNAME
            RENT = RENT
            @ 1,14 TO 3,61 DOUBLE
            @ 4,3 TO 16,79 PANEL
            @ 2,25 SAY "EDITING OF MASTER HOUSE FILE"
            @ 6,15 SAY "ZONE: " GET M->ZONE PICTURE "XX"
            @ 6,44 SAY "WOREDA: " GET M->WOREDA PICTURE "XX"

            @ 8,6 SAY "KEBELE: " GET M->KEBELE PICTURE "XX"
            @ 8,27 SAY "HOSTEL: " GET M->HSL PICTURE "XXXX"
            @ 10,25 SAY "APARTMENT: " GET M->APT PICTURE "XXXX"
            @ 12,6 SAY "BED: " GET M->BED PICTURE "XXXX"
            @ 12, 25 SAY "HOUSE NO: " GET M->HOUSENO PICTURE
"XXXX"

            @ 14,6 SAY "TENANT NAME: " GET M->TENANTNAME
PICTURE "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
            @ 14,57 SAY "RENT: " GET M->RENT PICTURE
"999999.99"
            READ
            REPLACE ZONE WITH M->ZONE, WOREDA WITH M->WOREDA,;
                 KEBELE WITH M->KEBELE, HSL WITH M->HSL,
HOUSENO WITH M->HOUSENO,;
                 APT WITH M->APT, BED WITH M->BED,;
                 TENANTNAME WITH M->TENANTNAME, RENT WITH
M->RENT
            DELETE FOR ZONE = "  "
            PACK
            CLEAR

            WAIT "DO YOU WISH TO EDIT AN OTHER? (Y/N) " TO M_Y
            IF UPPER(M_Y) = "Y"
                 clear
               DO EDIT3
                 clear
            ENDIF
            CLEAR
RETURN TO EDIT3


PROCEDURE UPDATEPRO
DO CASE
     CASE BAR() = 1
     DO RECO_JR
     USE TRANS
     TEXT
                    TRANSACTION FILE IS UPDATED

                    YOU CAN CONTINUE TO THE NEXT STEP.

     ENDTEXT
```

```
      WAIT
      CLEAR
      CASE BAR() = 2
      CLOSE DATABASE
      CLEAR
      USE GLMASTER
      TEXT

            ARE YOU SURE, YOU WANT TO UPDATE THE GENERAL LEDGER
FILE?

                              WARNING!

            THIS FILE SHOULD BE UPDATED ONLY AT THE END OF THE
MOTNTH.

      ENDTEXT

      WAIT " DO YOU WISH TO CONTINUE? (Y/N) " TO M_CON
      IF upper(M_CON) = "N"
      CLEAR
           RETURN
      ENDIF
      CLEAR
      STORE 0 TO OPNINGBAL
      REPLACE ALL OPNINGBAL WITH 0
      LIST
      STORE 0 TO TOTALDEBIT
      REPLACE ALL TOTALDEBIT WITH 0
      LIST
      STORE 0 TO TOTALCREDI
      REPLACE ALL TOTALCREDI WITH 0
      LIST
      REPLACE ALL OPNINGBAL WITH CLOSINGBAL
      LIST
      STORE 0 TO CLOSINGBAL
      REPLACE ALL CLOSINGBAL WITH 0
      LIST
      CLEAR


ENDCASE
RETURN

PROCEDURE REPORTPRO
DO CASE
      CASE BAR() = 1
      CLEAR
      DO DEL_TR
      DO RECO_JR
      CLEAR
      display all
      WAIT
      CLEAR
```

```
      CLOSE DATABASE

      CASE BAR() = 2
      close database
      DO DEL_GL
      DO POST_GL
      DO POSTMASTE
      return

      CASE BAR () = 3
      CLOSE DATABASE
      !DEL ACCT.NDX
      !DEL SBLEDGER.DBF
      USE glsort
      INDEX ON ACCTNO TO ACCT
      COPY TO SBLEDGER
      USE SBLEDGER
      REPLACE FOR ACCTNO = "1" BALANCE WITH OPENBAL +  DEBIT
- CREDIT
      REPLACE FOR ACCTNO = "2" BALANCE WITH OPENBAL + CREDIT
- DEBIT
      REPLACE FOR ACCTNO = "3" BALANCE WITH OPENBAL + CREDIT
- DEBIT
      REPLACE FOR ACCTNO = "4" BALANCE WITH OPENBAL + CREDIT
- DEBIT
      REPLACE FOR ACCTNO = "5" BALANCE WITH OPENBAL + DEBIT -
CREDIT
      REPLACE FOR ACCTNO = "6" BALANCE WITH OPENBAL + DEBIT -
CREDIT
      REPORT FORM GLMS.FRM
      WAIT
      DISPLAY ALL
      WAIT
      CLEAR
      RETURN

ENDCASE
RETURN
PROCEDURE RECO_JR
      USE TRJOUR
      APPEND FROM Trans.DBF for ACCTNO <> "     "
      USE TRANS
      REPLACE ALL ACCTNO WITH TRANS->Acctno
      CLEAR
RETURN


PROCEDURE PRINTPRO
DO CASE
      CASE BAR() = 1
      USE TRJOUR
      CLEAR
      SET PRINTER ON
      REPORT FORM TRj.FRM
      CLEAR
      SET PRINTER OFF
      CASE BAR() = 2
      USE GLMASTER
```

```
        CLEAR
        SET PRINTER ON
        REPORT FORM GLM.FRM
        SET PRINTER OFF
        CLEAR
        return
        CASE BAR() =3
        CLEAR
        USE SBLEDGER
        CLEAR
        SET PRINTER ON
        SCAN FOR ACCTNO <> "     "
        REPORT FORM GLMS.FRM
        SET PRINTER OFF
        ENDSCAN
        CLEAR
        return
        CASE BAR() = 4
        CLEAR
        DO PRE_TRIAL
        close database
        USE TRIALBAL
        SET PRINTER ON
        REPORT FORM TRIAL.FRM
        SET PRINTER OFF
        CLEAR
        RETURN
ENDCASE
RETURN

PROCEDURE POST_GL
CLEAR
CLOSE DATABASE
USE GLsort
APPEND FROM TRJOUR.DBF FOR ACCTNO = "1"
APPEND FROM TRJOUR.DBF FOR ACCTNO = "2"
APPEND FROM TRJOUR.DBF FOR ACCTNO = "3"
APPEND FROM TRJOUR.DBF FOR ACCTNO = "4"
APPEND FROM TRJOUR.DBF FOR ACCTNO = "5"
APPEND FROM TRJOUR.DBF FOR ACCTNO = "6"
USE TRJOUR
REPLACE ALL ACCTNO WITH TRJOUR->ACCTNO
CLEAR
RETURN

PROCEDURE DEL_TRIAL
USE TRIALBAL
DELETE ALL
PACK
RETURN

PROCEDURE DEL_TR
USE TRJOUR
DELETE ALL
PACK
RETURN

PROCEDURE DEL_GL
```

```
CLOSE DATABASE
USE glsort
DELETE ALL
PACK

RETURN

PROCEDURE POSTMASTE
CLEAR
USE GLsort
CALCULATE SUM(DEBIT) FOR ACCTNO = "1110" TO T1110D
CALCULATE SUM(CREDIT) FOR ACCTNO = "1110" TO T1110C
CALCULATE SUM(DEBIT) FOR ACCTNO = "1410" TO T1410D
CALCULATE SUM(CREDIT) FOR ACCTNO = "1410" TO T1410C
CALCULATE SUM(DEBIT) FOR ACCTNO = "1420" TO T1420D
CALCULATE SUM(CREDIT) FOR ACCTNO = "1420" TO T1420C
CALCULATE SUM(DEBIT) FOR ACCTNO = "1760" TO T1760D
CALCULATE SUM(CREDIT) FOR ACCTNO = "1760" TO T1760C
CALCULATE SUM(DEBIT) FOR ACCTNO = "2120" TO T2120D
CALCULATE SUM(CREDIT) FOR ACCTNO = "2120" TO T2120C
CALCULATE SUM(DEBIT) FOR ACCTNO = "4000" TO T4000D
CALCULATE SUM(CREDIT) FOR ACCTNO = "4000" TO T4000C
CALCULATE SUM(CREDIT) FOR ACCTNO = "4100" TO T4100C
CALCULATE SUM(DEBIT) FOR ACCTNO = "4100" TO T4100D
CALCULATE SUM(DEBIT) FOR ACCTNO = "4200" TO T4200D
CALCULATE SUM(CREDIT) FOR ACCTNO = "4200" TO T4200C
CALCULATE SUM(DEBIT) FOR ACCTNO = "5000" TO T5000D
CALCULATE SUM(CREDIT) FOR ACCTNO = "5000" TO T5000C
CALCULATE SUM(DEBIT) FOR ACCTNO = "5010" TO T5010D
CALCULATE SUM(CREDIT) FOR ACCTNO = "5010" TO T5010C
CALCULATE SUM(CREDIT) FOR ACCTNO = "5020" TO T5020C
CALCULATE SUM(DEBIT) FOR ACCTNO = "5020" TO T5020D
CALCULATE SUM(CREDIT) FOR ACCTNO = "5030" TO T5030C
CALCULATE SUM(DEBIT) FOR ACCTNO = "5030" TO T5030D
CALCULATE SUM(CREDIT) FOR ACCTNO = "5040" TO T5040C
CALCULATE SUM(DEBIT) FOR ACCTNO = "5040" TO T5040D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6000" TO T6000C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6000" TO T6000D
CALCULATE SUM(DEBIT) FOR ACCTNO = "6011" TO T6011D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6011" TO T6011C
CALCULATE SUM(CREDIT) FOR ACCTNO = "6012" TO T6012C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6012" TO T6012D
CALCULATE SUM(DEBIT) FOR ACCTNO = "6013" TO T6013D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6013" TO T6013C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6014" TO T6014D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6014" TO T6014C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6015" TO T6015D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6015" TO T6015C
CALCULATE SUM(CREDIT) FOR ACCTNO = "6016" TO T6016C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6016" TO T6016D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6017" TO T6017C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6017" TO T6017D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6018" TO T6018C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6018" TO T6018D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6019" TO T6019C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6019" TO T6019D
CALCULATE SUM(DEBIT) FOR ACCTNO = "6020" TO T6020D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6020" TO T6020C
```

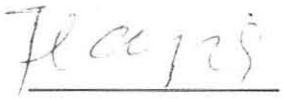
```
CALCULATE SUM(DEBIT) FOR ACCTNO = "6021" TO T6021D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6021" TO T6021C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6022" TO T6022D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6022" TO T6022C
CALCULATE SUM(CREDIT) FOR ACCTNO = "6023" TO T6023C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6023" TO T6023D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6024" TO T6024C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6024" TO T6024D
CALCULATE SUM(DEBIT) FOR ACCTNO = "6025" TO T6025D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6025" TO T6025C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6025" TO T6025D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6026" TO T6026C
CALCULATE SUM(DEBIT) FOR ACCTNO = "6026" TO T6026D
CALCULATE SUM(DEBIT) FOR ACCTNO = "6027" TO T6027D
CALCULATE SUM(CREDIT) FOR ACCTNO = "6027" TO T6027C

USE GLMASTER
REPLACE TOTALCREDI WITH 0
REPLACE TOTALDEBIT WITH 0
REPLACE FOR ACCOUNTNO = "1110"  TOTALDEBIT WITH T1110D
REPLACE FOR ACCOUNTNO = "1110" TOTALCREDI  WITH T1110C
REPLACE FOR ACCOUNTNO = "1410"  TOTALDEBIT WITH T1410D
REPLACE FOR ACCOUNTNO = "1410" TOTALCREDI  WITH T1410C
REPLACE FOR ACCOUNTNO = "1760" TOTALDEBIT WITH T1760D
REPLACE FOR ACCOUNTNO = "1760" TOTALCREDI WITH T1760C
REPLACE FOR ACCOUNTNO = "2120" TOTALDEBIT WITH T2120D
REPLACE FOR ACCOUNTNO = "2120" TOTALCREDI WITH T2120C
REPLACE FOR ACCOUNTNO = "4000" TOTALDEBIT WITH T4000D
REPLACE FOR ACCOUNTNO = "4000" TOTALCREDI WITH T4000C
REPLACE FOR ACCOUNTNO = "4100"  TOTALDEBIT WITH T4100D
REPLACE FOR ACCOUNTNO = "4100" TOTALCREDI  WITH T4100C
REPLACE FOR ACCOUNTNO = "4200" TOTALDEBIT WITH T4200D
REPLACE FOR ACCOUNTNO = "4200" TOTALCREDI WITH T4200C
REPLACE FOR ACCOUNTNO = "5000" TOTALDEBIT WITH T5000D
REPLACE FOR ACCOUNTNO = "5000" TOTALCREDI WITH T5000C
REPLACE FOR ACCOUNTNO = "5010" TOTALDEBIT WITH T5010D
REPLACE FOR ACCOUNTNO = "5010" TOTALCREDI WITH T5010C
REPLACE FOR ACCOUNTNO = "5020" TOTALDEBIT WITH T5020D
REPLACE FOR ACCOUNTNO = "5020" TOTALCREDI WITH T5020C
REPLACE FOR ACCOUNTNO = "5030" TOTALDEBIT WITH T5030D
REPLACE FOR ACCOUNTNO = "5030" TOTALCREDI WITH T5030C
REPLACE FOR ACCOUNTNO = "5040"  TOTALDEBIT WITH T5040D
REPLACE FOR ACCOUNTNO = "5040" TOTALCREDI  WITH T5040C
REPLACE FOR ACCOUNTNO = "6000" TOTALDEBIT WITH T6000D
REPLACE FOR ACCOUNTNO = "6000" TOTALCREDI WITH T6000C
REPLACE FOR ACCOUNTNO = "6011" TOTALDEBIT WITH T6011D
REPLACE FOR ACCOUNTNO = "6011" TOTALCREDI WITH T6011C
REPLACE FOR ACCOUNTNO = "6012" TOTALDEBIT WITH T6012D
REPLACE FOR ACCOUNTNO = "6012" TOTALCREDI WITH T6012C
REPLACE FOR ACCOUNTNO = "6013" TOTALDEBIT WITH T6013D
REPLACE FOR ACCOUNTNO = "6013" TOTALCREDI WITH T6013C
REPLACE FOR ACCOUNTNO = "6014" TOTALDEBIT WITH T6014D
REPLACE FOR ACCOUNTNO = "6014" TOTALCREDI WITH T6014C
REPLACE FOR ACCOUNTNO = "6015" TOTALDEBIT WITH T6015D
REPLACE FOR ACCOUNTNO = "6015" TOTALCREDI WITH T6015C
REPLACE FOR ACCOUNTNO = "6016" TOTALDEBIT WITH T6016D
REPLACE FOR ACCOUNTNO = "6016" TOTALCREDI WITH T6016C
REPLACE FOR ACCOUNTNO = "6017" TOTALDEBIT WITH T6017D
```

NOTE : The existing accounting codes structure does not follow the same pattern. Therefore, the source code becomes too many lines. The accounts code must be restructured to have each account same data structure so that the programs will be come shorten. This has been introduced to Finance department to review the existing accounts code and change in accordance with the proposed system.

DECLARATION

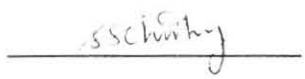
This thesis is my original work and has not been presented for a degree in any other university.



Tessema Geda

May 24, 1995

The thesis has been submitted for examination with our approval as unversity advisors.



Dr. G.G. Chowdhury

May 24, 1995

Dr. Taye Tadesse

May 24, 1995