

PN.AB6-268
68601

**CONSULTANCY REPORT ON
COMPUTERIZED STOCK CONTROL
FOR THE
UGANDA COOPERATIVES CENTRAL UNION
CAAS PROJECT**

Prepared by:

by Kim G. Glenn, Glenco Associates, Inc.

Prepared for:

**Agricultural Cooperatives Development International
50 F Street, N.W.
Suite 900
Washington D.C. 20001
Phone: (202) 638-4661
Telex: 160923 AGCODEV**

February 1990

ACKNOWLEDGEMENTS

In conducting this System Analysis and preparing this report I am indebted to Francis Lwanga, UCCU Computer Programmer, and Sam Onek, UCA Business Services Management Consultant. Francis and Sam accompanied me on virtually all interviews and participated fully in deliberations. I am also grateful to their supervisors for making them available over these past few weeks.

We benefited greatly from the kind and patient support provided by the following people, who tolerated our many questions: Ben Okullu, Manager of Warehousing and Marketing; William Verner, Warehousing and Marketing Advisor; Arthur Nduhura, Senior Stores Clerk; Margaret Mawanga, Principal Supply Officer; Jimmy Mukasa, Senior Internal Auditor; Sam Ogingwa, Procurement Officer; Jackson Lagedo, Clearing Officer; Y. Ococh, Chief Accountant; William Ekallo, Principal Accountant; Moses, Henry and Bernard, storekeepers at Kawempe; Rashid Iyiga, Acting Senior Sales Officer (Shop Supervisor) of the Farm Supply Shop.

My appreciation to Rose Nadunga, Principal Personnel and Administration Officer, for finding me office facilities, providing me support and her kind attention to the impact computers will have on personnel of UCCU.

TABLE OF CONTENTS

INTRODUCTION	1
REVIEW OF SYSTEM ANALYSIS	2
FLOW CHART FOR PROPOSED STOCK CONTROL SYSTEM	3
SUMMARY OF RECOMMENDATIONS	4
RECOMMENDATIONS AND CONSIDERATIONS	5
PERSONNEL AND TRAINING	5
HARDWARE	6
SOFTWARE	8
APPENDIX A: DATA ELEMENT SPECIFICATIONS	9
INTRODUCTION	10
MAIN.DBF	11
SUMMARY OF MAIN.DBF (12)	
DETAILED DESCRIPTION OF MAIN.DBF DATA ELEMENTS (13)	
PROPOSED CATEGORIES AND SUBCATEGORIES (17)	
MONTHLY.DBF	26
GENERAL DESCRIPTION (26)	
SUMMARY OF MONTHLY.DBF (27)	
APPENDIX B: REPORT SPECIFICATIONS	28
WEEKLY STOREKEEPERS' REPORT	29
MONTHLY ACTIVITY REPORT	30
PERIODIC SOURCE STOCK REPORT	31
WEEKLY FARM SUPPLY SHOP PRICELIST	32
WEEKLY SALES OFFICE (KAWEMPE) PRICELIST	33
MONTHLY STOCK VALUATION REPORT	34
QUERY ITEMS NOT MOVED FOR X# MONTHS	35

INTRODUCTION

The purpose of this report is to present specifications for the initial computerization of the UCCU Stock Control Information System. I also here present my recommendations and cost estimate for implementation.

This is the first time computer technology will be applied to this particular information system at UCCU. The computerized version should make as few changes as possible to the existing system. Those who are accustomed to receiving stock control information should receive essentially the same information. The information should resemble existing report formats as closely as possible or in approved and clearly improved formats. Forms now used in the manual system should remain unchanged as much as possible. Databases (bin cards) in the manual system should be replaced with computer reports that will achieve at least the same purposes.

The only acceptable major change resulting from this initial computer application is in the improved timeliness, accuracy and usefulness of the information.

Unquestionably the ideal goal is to apply computer technology to achieve an integrated accounting and stock control system. This is not the purpose of this initial application. This initial application should provide immediate relief from major data processing burdens. At the same time it will provide necessary training and experience towards achieving the ideal goal. This is the purpose of this initial application of computer technology to stock control data processing.

UCCU should plan on installing a full featured integrated stock control and accounting system in time for beginning the 1 July 1991 financial year. Preparations for this should begin in February 1991, about one year from today.

REVIEW OF SYSTEM ANALYSIS

The existing manual stock control system was analyzed by collecting all forms and reports now part of that system. We interviewed all personnel who generated or received these forms and reports.

We drafted a flow chart (see next page) to illustrate the proposed role the computer would play in the system. It also mapped the flow of the major documents of the system.

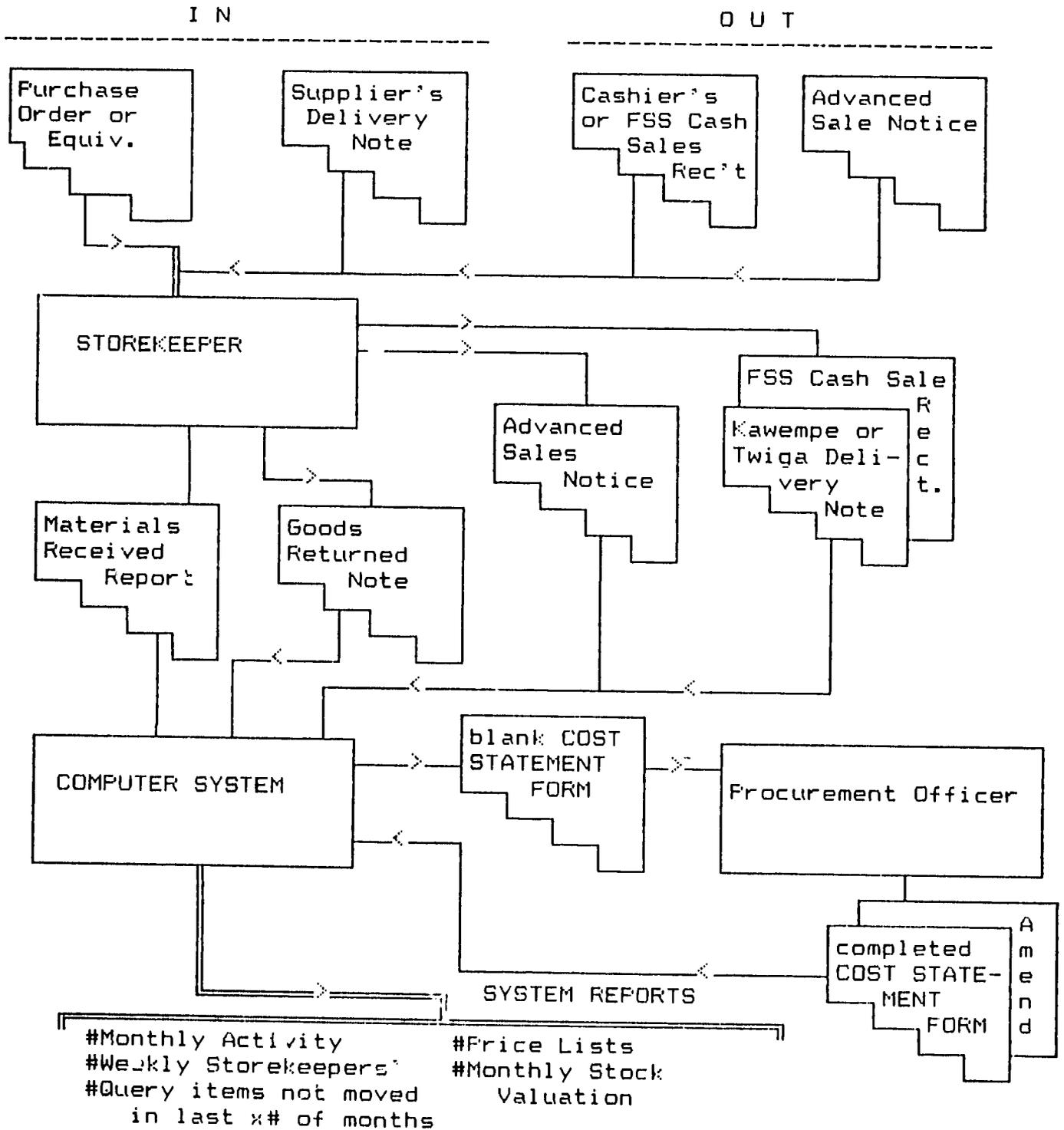
We identified, named and defined data elements on the basis of these forms, reports and interviews.

We analyzed the reports now used in the existing stock control system and drafted their equivalents to be generated by the computer.

Only at this point did we begin reviewing options for software to manage the system. We found essentially two options: to use the SCALA system available from UCA Business Services Ltd; or to develop a custom application in dBASE IV (also using the programming services of UCA Business Services Ltd.)

The following sections present our recommendations. The Appendix documents the detailed system specifications.

FLOW CHART FOR PROPOSED STOCK CONTROL SYSTEM



SUMMARY OF RECOMMENDATIONS

1. Authorize me to begin developing the computerized stock control system in dBASE IV. This may be at the expense of other areas of my terms of reference.
2. Commit the use of the computer system now operating Hogia at UCCU headquarters to also operate the stock control system until such time as funds and power conditions permit the installation of a system at Kawempe.
3. Allocate at least 50% of Francis Lwanga's work time for computerized stock control and related microcomputer applications for an indefinite period, probably at least 6 months.
4. Circulate a written communication from the General Manager expressing UCCU's commitment to never dismiss an employee as a direct result of computerization. The purpose of computerization is to use employees more effectively, not to eliminate them.
5. Begin planning now to implement an integrated accounting and stock control system for 1 July 1991. Alert UCA Business Services, Ltd of the intent and obtain their guidance to budget for related expenses.

RECOMMENDATIONS AND CONSIDERATIONS

PERSONNEL AND TRAINING

Appoint two individuals to be trained and assume responsibility for operating the computerized Stock Control System. While Francis Lwanga will inevitably have the capability for operating the system, he should not be considered one of these two people.

Training will be provided by those responsible for implementing the computerized Stock Control System.

Appoint Francis Lwanga as responsible for implementation and general operation of the computerized Stock Control System.

Assign responsibility to one person at UCCU headquarters for insuring all computer hardware is operating correctly. This includes monitoring the terms of leasing agreements to be sure hardware and service is satisfactory. This person would insure that spare printer ribbons are always available and fresh ribbons are used frequently.

Provide a written commitment to all employees that they will not be dismissed as a direct result of computerization. Naturally, as computers take over existing job functions some employees may be left with nothing to do. Their job descriptions will change, and additional training may be necessary. Individuals with higher capabilities can be moved into new positions of greater effectiveness. The posts they vacate may be filled with other employees, some of whom have been made available through computerization.

Without this commitment, further computerization may be hindered or outright prevented. Development of effective computer applications depends directly on the support of all employees currently employed in the relevant system. If they feel their employment is threatened, they will understandably be hesitant to cooperate.

HARDWARE

If funds permit, install a full computer system at Kawempe for the purpose of operating the Stock Control System.

A generator will be required considering the extended power problems there. A 15 KVA generator would provide adequate power for all needs at Kawempe, including the computer. A minimum generator size should be 1 KVA. Generator costs are rough estimates based on my experience elsewhere in Africa.

Computer cost estimates are from UCA Business Services/LTD. Leasing arrangements may be more advantageous.

Cost estimates and options are:

*Computer system	Sh 1.4 to 1.7 million
*UPS	Sh 600,000
15 KVA Generator	US\$15,000
*1 KVA Generator	US\$ 1,000

* A minimum configuration for operating the computer at Kawempe.

An alternative to the above system may be considered. Laptop computers are now easily as powerful as desktop models. In addition, they now carry built in power protection such that they are virtually immune to power fluctuations. They may operate effectively for 8 hours on their own easily changed internal batteries. Some models (such as the Toshiba line) can use an adaptor such that they can be powered from the cigarette lighter or similar hookup for a 12 volt battery system. Such arrangements suggest a cost effective solar charged 12 volt battery system, or simply an automobile charged 12 volt battery system. This possibility should be discussed with UCA Business Service Ltd or other reliable suppliers.

With hardware we must also consider the room at Kawempe where it will be installed. An electrically grounded outlet is required which provides at least 220 volts. No other heavy duty electrical load should be on the circuit.

The computer work station should include a desk area 3

feet wide and six feet long. Computer operators will require at least two chairs. A book shelf is required for manuals. A two drawer or more locking filing cabinet is needed for maintaining operations files and source document records. The filing cabinet should be secure against insects and rodents.

The computer room should have a locking door and security bars on the windows. When installed, the computer operators and their supervisor should be the only ones with keys.

Funding may not permit installing and operating the computer system at Kawempe at this time. In this case, the existing system now operating the Hogia Accounting System at UCCU Headquarters could be used as a temporary measure. This computer is currently under lease arrangement from UCA Business Services Ltd.

This is an expediant, but not a very satisfactory arrangement as all documents from the the various stores, including the Farm Supply Shop must then be sent to UCCU Headquarters for processing. The primary users of the system are located at Kawempe, being the Warehouse and Marketing Department and the Sales Office at Kawempe. Also, three of the five storekeepers of UCCU are based at Kawempe with their respective stores.

SOFTWARE

SCALA stock control software is available at no extra charge from UCA Business Services Ltd as part of their computer leasing service. However, it does not provide all the features and capabilities needed by UCCU. On the other hand, it provides many features and capabilities that UCCU does may not at this time be able to use.

To use SCALA will be to tailor UCCU's operations to fit the package. The results will inevitably be, in my opinion, unsatisfactory to UCCU management in some respects.

Alternatively, a customized system can be developed using dBASE IV software. This would provide all the features and functions needed by UCCU as defined in the systems analysis. It would also provide an immediate practical demonstration of using dBASE IV for local applications development. UCCU staff and UCA Business Service Ltd could both benefit from this.

An original package of dBASE IV must be purchased. Retail cost in the US is about US\$700. A package may be borrowed until an original is available.

I myself can provide the basis for the systems development and do much of the actual programming. UCA Business Services reports that they would have a programmer available in April for such a Project. Prior to my departure on 7 March most of the implementation would be complete and the work turned over to Francis Lwanga and a programmer from UCA Business Services Ltd for followup and maintenance. Mr. Lwanga has excellent programming skills from his experience with the NCR Accounting machines. These will easily be transferred to the dBASE IV programming environment.

The hidden cost of this option is that little else on my terms of reference will be accomplished. However, stock control has broad impact on UCCU. The flow of stock related paper throughout UCCU will still be addressed as part of implementing this system.

APPENDIX A: DATA ELEMENT SPECIFICATIONS

INTRODUCTION

Regardless of what software is used, it is necessary to develop a vocabulary to describe what data elements should, ideally, be handled by the system. The purpose of this data dictionary is to begin defining these elements and their use. They collectively reflect the current needs and wishes of UCCU management regarding stock control information.

The principle we followed is to establish a data element for every unique information element in the system. Some software may accommodate more than one data element in a single information element. For example, a "stock number" may contain codes which help to describe the stock as well as identify it for control purposes. In this case we have defined several data elements each having their own function. In practice they may be considered as a single information element appearing together. Modern information management principles advocate that data elements always express one and only one meaning.

Some software may not handle all elements. UCCU management may choose to sacrifice some data elements and related functions in order to use packaged software. It is important to know first what will be lost in doing so.

I have used dBASE IV conventions for defining data elements and placing them in relevant database files. The conventions are effective for our purposes and also provide an easy reference should UCCU management elect to develop a custom application for this system.

MAIN.DBF

GENERAL DESCRIPTION

This database file is essentially based on the stock control "bin cards" used by the storekeepers at Kawempe and Twiga. A similar stock control card is used by the Sales Office at Kawempe. Ledgers are kept with stock control pages by the Farm Supply Shop and the Internal Audit department at UCCU headquarters.

This database file should eliminate the need for all the above mentioned stock control systems except that of the Farm Supply Shop. The level of activity at the Farm Supply Shop will require that they continue to monitor their stores by use of their own ledgers. This assumes that the computer system is physically based either at UCCU Headquarters or at Kawempe. Our recommendation is that it be placed at Kawempe as soon as possible.

An option to consider is to install a separate computerized stock control, or point of sale integrated accounting system at the Farm Supply Shop for the purpose of monitoring their own stock. I feel that it is premature to attempt this.

This file will work together with a MONTHLY ACTIVITY file in order to print out all necessary reports for the system. Some look-up files may also be used for interpreting codes during data entry, queries and report generations.

SUMMARY OF MAIN.DBF

Data Element Name	Type	Len	Description (see subsequent pages for details) * indicates mandatory data element.
=====	====	===	=====
SOURCE	C	4	Source of goods codes: UCCU, CAAS, AID,
CATEGORY	C	2	Code to indicate major category.*
SUBCATEG	C	2	Subsets of above categories.
ACCTCLAS	C	3	Classification for Accounting Purposes.*
IDNUMBER	C	5	Unique number from 1 to 99,999.*
STORE	C	4	Location of goods as defined by storekeeper responsibility.*
LOCATION	C	5	Code locating goods within stores.
DESCRIPT	C	40	Narrative description of goods.*
COST	N	12	Cost as on approved cost statement.*
APRVAL	N	12	Appraised value as per periodic accounting review.
PRICE	N	12	Price as determined on approved cost statement.*
LSTDOCDT	D	8	Last Document Date.*
LSTDOCNO	C	6	Last Document Number.*
LSTDOCTP	C	3	Last Document Type.*
PARTNO	C	12	Manufacturer's Part Number.
OBLIGED	N	9	Number obligated to advanced sales but not yet delivered.
BALANCE	N	9	Quantity in stock including obliged.*
UNIT	C	4	Unit code indicating quantity of measure.*

DETAILED DESCRIPTION OF MAIN.DBF DATA ELEMENTS

SOURCE C 4 Source of goods codes: UCCU, CAAS, AID, EEC etc.*

This data element can be defined by the Procurement Officer and communicated to the Storekeeper prior to delivery of goods, via the Purchase Order or equivalent communication.

It must be then indicated on the Material Received Report from which it will be entered into the computer system.

The following is a list of all current sources of trade and non-trade goods in store:

CAAS

EEC

UCCU

UCA/SCC (non-trade goods, being stored as a service only.)

ARP

CATEGORY	C	2	Code to indicate major category, eg Construction (CO).*
SUBCATEG	C	2	Subsets of above categories.
ACCTCLAS	C	3	Classification for Accounting Purposes.*

Following discussion with the Chief Accountant we determined that all trade goods should fall into one of 15 maximum categories. The Hogia accounting system permits up to 20 categories. By limiting ourselves to 15 now, we will have 5 additional new categories that can be created later if needed.

These categories should reflect logical groupings of trade goods. This will assist in locating goods for customer sales, monitoring the movement of goods by logical groups, and eventually the profitability of categories relative to each other.

Historically UCCU has used only two categories: Industrial and Agricultural (often referred to as Farm Supply). However, the storekeepers and sales offices naturally developed their own categories to assist in managing stores. These two categories are not sufficient in themselves and will be replaced with the 15 or so categories being proposed.

Subcategories will permit analysis of goods to an even greater degree of detail. A major category may be "construction materials" while a subcategory under it may be "cement". Subcategories are subsets of categories. Subcategories will only be useful for analyzing stock movement since the Hogia accounting software is not capable of handling this data element.

At the time Hogia was installed 20 categories were created to meet immediately perceived accounting needs. These will continue to be used in the stock control system under the data element ACCTCLAS. At the beginning of the next Financial Year (1 July 1990) the Hogia chart of accounts will be amended to match the codes used in the CATEGORY data element. Throughout the 1990-91 Financial Year the Stock Control and Accounting Categories will be the same. The ACCTCLAS data element may be ignored.

The following are proposed categories and subcategories. They are based on the original work of Bill Verner, Warehouse and Marketing Advisor. Where we may need more detail to appropriately describe the item we will use the DESCRIP data

element. Additional subcategories can always be added. Few new categories can be added due to limitations in the Hogia accounting system. If needed, a "OTHER" category could be used pending development of an integrated full featured stock/accounting system.

PROPOSED CATEGORIES AND SUBCATEGORIES FOR STOCK CONTROL

CO=CONSTRUCTION

CE=CEMENT
 BA=BARS
 NA=NAILS
 SC=SCREWS
 BO=BOLTS
 FE=FENCING

MA=MAIZE
 BN=BinS
 SF=SUNFLOWER
 WT=WHEAT
 GN=GROUND NUTS

FK=PACKAGE MATERIAL

FL=PLUMBING

PI=PIPE AND RELATED
 PU=PUMPS
 VA=VALVES

BG=GUNNY BAGS
 HC=HESSIAN CLOTH
 BF=PLASTIC BAGS
 TW=TWINE
 HF=HOOPS
 BC=COTTON BAGS

TA=AGRICULTURAL TOOLS

PA=PANGAS
 HO=HOES
 SR=SLASHERS
 FL=FLAWS
 PS=FLOW SPARES
 WB=WHEEL BARROWS
 WB=WHEEL BARROW SPARES
 SE=SEEDERS
 SS=SEEDER SPARES

MI=MILLS (COFFEE HULLERS,
 GINNERIES)

CS=COFFEE SPARES
 GS=GINNERY SPARES
 CW=CHROME WASHERS
 BT=BELTS

BI=BICYCLES AND SPARES

FT=FERTILIZERS

TH=HAND TOOLS

CAN=CALCIUM AMMONIUM
 NITRATE
 ASN=AMMONIUM SULPHUR
 NITRATE
 NPK=NITROGEN(20)
 PHOSPHORUS(10)
 POTASH(10)
 DAP=AMMONIUM PHOSPHATE
 URA=UREA

MO=MOTORS

DE=DIESEL
 DS=DIESEL SPARES
 PT=PETROL
 PS=PETROL SPARES
 EL=ELECTRIC
 ES=ELECTRIC SPARES

CH=CHEMICALS (eg herbicides,
 insecticides)

VE=VETERINARY SUPPLIES

SE=SEEDS

VG=VEGETABLES

IDNUMBER C 5 Unique identification number from 1 to 99,999.*

The purpose of this data element is to identify one type of item handled by UCCU in one location. This ID number is assigned by the computer operator at the time the computer record is created. It may also be called a "stock control number" but does not include descriptive data elements. It's primary function is to facilitate data entry by quickly locating computer records. It is also used by a dBASE IV system for linking MAIN.DBF and MONTHLY.DBF for report generation.

The IDNUMBER should be all that is required to locate the record in MAIN.DBF.

It must be communicated to the StoreKeeper, Sales Office, Internal Audit and Accounting. It is to be used on all documents referring to these items: MRR's, GRN's, DN's, Advance Sales Notices, and Cost Statements.

Upon assignment, this number will appear on Storekeeper's Weekly Reports and on Sales Office Price Lists, copies of which would go monthly to Audit and Accounting.

STORE	C	4	Location of goods as defined by storekeeper responsibility.*
LOCATION	C	5	Location code assigned by storekeeper to assist in locating goods within his own stores. eg Building number, row and shelf ID codes.

Obviously goods must be identified as to where they are located. At this time, there are five separate locations: Three at Kawempe, one at Twiga and one at the Farm Supply Shop. A location is defined as being under the responsibility of a single storekeeper for which he currently maintains a single set of bin cards. This is the STORE data element.

I suggest the following codes and meanings:

KW1 = Kawempe #1 = under responsibility of Moses.

KW2 = Kawempe #2 = under responsibility of Bernard.

KW3 = Kawempe #3 = under responsibility of Henry.

TWA = Twiga

FSS = Farm Supply Shop

Storekeepers now use codes of their own definition to assist them in locating items under their responsibility. This is the purpose of the LOCATION data element. They may use up to 5 characters and/or numbers for this purpose. Codes may indicate building, row and shelf for example.

Both STORE and LOCATION (if used) must be indicated on Delivery Notes along with IDNUMBER so that the appropriate stock control record is adjusted. If a LOCATION is specified on the original MRR, then it must be specified on the DN and similar documents.

DESCRIPT C 40 Narrative description of goods.*

This field should hold such information as the manufacturer, model number, or other descriptive information. EG, Raleigh bicycles from India (to distinguish them from other bicycles that may be in stock). It may also indicate sizes of materials, such as "ANGLE BARS 75X75X6".

It should not indicate manufacturer's part number, since a separate data element is defined for this purpose.

COST	N	12	Cost as determined on approved cost statement.*
ARFVAL	N	12	Appraised value as per periodic accounting review.
PRICE	N	12	Selling Price as determined on approved cost statement.*

These values are established by the Procurement Officer and/or Clearing Officer as soon as possible following receipt of the materials.

If the materials are to be sold immediately upon receipt, then the Cost Statement must be completed and submitted to the storekeeper prior to the sale. An MRR and Delivery Note must still be completed by the storekeeper as though the goods were actually placed in stores. This is the proposed means for handling situations where goods have been procured and then sold upon arrival at the train depot at Twiga, for example.

ARFVAL is provided by the Accounting Department upon periodic re-appraisal of actual value of stock. The purpose is to estimate net worth of stock if immediate liquidation were to take place. ARFVAL would be indicated by Accounting on their Stock Appraisal report and returned to the Computer Operator for data entry.

Range from 0.00 to sh999,999,999,999.

The computer system will interpret "0" as meaning goods are not trade goods of UCCU but stored as a service for others.

The computer will interpret all "9's" as indicating awaiting cost statement.

LSTDOCDT	D	8	Last Document Date. Date of last document affecting this record. See LSTDOCTP below.*
LSTDOCNO	C	6	Last Document Number. Number of last document affecting this record. See LSTDOCTP below.*
LSTDOCTP	C	3	Last Document Type. MRR = Materials Received Report. GRN = Goods Returned Note. ASN = Advanced Sales Notice. DNT = Delivery Note. CST = Cost Statement. CSR = Cash Sales Receipt (Farm Supply Shop only).*

The data entry process begins with the submission of a stock data entry document to the computer operator. This may be one of five documents: MRR, GRN, ASN, CST, or CSR as defined above under LSTDOCTP. We are proposing that as of 1 February Delivery Notes must be used for all sales of goods from Kawempe and Twiga. Cash Sales Receipts will, of course, continue to be used by the Farm Supply shop.

After entering the data, the operator will stamp the document as having been entered into the system, and file it in the computer operations files.

It is important to know what document last affected the computer stock record. If there is any question, it can be referred to. These documents are also required for the purposes of data recovery in case of system failure and for audit purposes.

6 characters seems to be enough space for document numbers. All of these documents should be sequentially numbered, including Cost Statements (which currently are not numbered) and Advanced Sales Notices (which is a new document proposed with this system).

PARTNO C 12 Manufacturer's Part Number.

A customer may request a specific part. The Sales department may need to search for this part by its part number. If this information is stored in its own field, then a computer search can be very fast.

Also, a separate printed report can be generated by part numbers to facilitate easy reference.

This is optional since many items may have no part number.

MONTHLY.DBF

GENERAL DESCRIPTION

The purpose of this file is to record stock movement activity during individual months of the year. This file will be updated from the entry of transaction documents (MRR's, DN's, CSR's).

Updating here means that a new record will be created for the first transaction of any particular item in any particular store in any particular month. The starting balance will be taken from the main database record prior to updating the balance in that main database record. When preparing monthly reports from the system the closing balance will be taken from the main database record in order to prepare a monthly activity report. Once stock transactions are closed for a particular month all subsequent transactions must be attributed to future months.

This is similar to closing the books in an accounting system for a particular month.

SUMMARY OF MONTHLY.DBF

Data Element Name	Type	Len	Description
MONTH	C	2	Month of the year expressed numerically.
YEAR	C	2	Year expressed as last two digits.
IDNUMBER	C	5	Unique stock control number identifying particular item in stock, regardless of where it is located.
STORE	C	4	Location of goods as defined by storekeeper responsibility.
LOCATION	C	5	Code locating goods within stores.
RECVD	N	9	Quantity of goods received. This amount accrues during the month to reflect the total at the end of the month.
DISB	N	9	Quantity of goods sold or otherwise disbursed from stores during the month. This amount also accrues to reflect total disbursements during month.
OPENBAL	N	9	Opening balance in stores at the beginning of the month. Taken from BALANCE in MAIN.DBF before updating BALANCE with first transaction in a month.
CLOSEBAL	N	9	Closing balance in stores at the end of the month. Taken from BALANCE in MAIN.DBF after last transaction for month is processed.

APPENDIX B: REPORT SPECIFICATIONS

WEEKLY STOREKEEPERS' REPORT

GENERAL DESCRIPTION

The purpose of this report is to provide the storekeepers with up-to-date records of what should be located in their respective stores. As goods are received and disbursed by the storekeeper during any given week, he will need to make temporary notations on his report until the next weekly report is submitted.

I propose that the storekeeper simply tick any item on his report that has been affected by stock movement since the report was printed. To determine availability, the storekeeper would check his report. If no tick is found against that item, then the balance shown should be correct. If he has ticked that item, then he will be reminded to check recent MRR's, DN's and similar documents to calculate the correct balance.

Obviously, the Farm Supply Shop cannot wait as long as a week to receive a report. The activity there is probably to frequent to permit them to use this system. In that case, some or all of their current ledger system may be continued.

<u>DISTRIBUTION</u>	<u>FREQUENCY</u>
Storekeepers	Weekly
Procurement	Monthly
Warehouse and Marketing	Monthly

SOURCE

MAIN.DBF

GROUP BY

STORE+LOCATION+CATEGORY+SUBCATEG

CONTENT

IDNUMBER DESCRIP PARTNO UNIT BALANCE OBLIGED ->
 (ACTBAL)* LASTDOCNO LASTDOCTP LASTDOCDT

*ACTBAL = calculated field BALANCE-OBLIGED

MONTHLY ACTIVITY REPORT

GENERAL DESCRIPTION

Under the current system, the storekeepers laboriously reproduce monthly stock returns indicating all items in stock, whether or not there was any activity, and if there was activity indicating quantity received, disbursed and the balance.

The purpose of this report is to summarize all activity for any particular month or series of months. The only stock items to be listed will be those for which some movement has occurred, either receipts into stores or disbursement out of stores.

<u>DISTRIBUTION</u>	<u>FREQUENCY</u>
Marketing & Warehousing Mgr	Monthly
Audit Dept	Monthly
Procurement	Monthly
General Manager	On Demand

SOURCE

MONTHLY.DBF RELATED ON IDNUMBER TO MAIN.DBF

CONDITION

MONTH = specified month(s) .AND. YEAR = specified year(s)

GROUP BY

CATEGORY+SUBCATEG

CONTENT

IDNUMBER DESCRIP UNIT OPENBAL RECVD DISB CLOSEBAL

PERIODIC SOURCE STOCK REPORT

GENERAL DESCRIPTION

UCCU from time to time receives goods from sources other than itself. Some of these goods are trade goods for resale by UCCU. Others may be warehoused and distributed as a service to an outside agency.

For whatever reason, it seems reasonable that UCCU management may want to account for stock movement of these particular goods, even though they may be mixed in with other similar goods.

The purpose of this report is to document what items from a particular source are received and disbursed for a single month or series of months.

DISTRIBUTIONFREQUENCY

UCCU Management

On Demand

SOURCE

MONTHLY.DBF RELATED ON IDNUMBER TO MAIN.DBF

CONDITION

MONTH = specified month(s).AND.YEAR = specified year(s);
.AND. SOURCE = specified source

GROUP BY

CATEGORY+SUBCATEG

CONTENT

IDNUMBER DESCRIP UNIT OPENBAL RECVD DISB CLOSEBAL

WEEKLY FARM SUPPLY SHOP PRICELIST

GENERAL DESCRIPTION

The Farm Supply Shop will need an updated price list indicating what is available in their store and their current price. This report will provide all information necessary to respond to customer requests and to complete a cash sale receipt correctly, such that the movement of stock as a result of the sale will be entered correctly into the computer system.

This report differs from the storekeepers report in the way the goods are grouped, and in certain data elements not needed by the storekeepers. ACCTCLAS is an example.

<u>DISTRIBUTION</u>	<u>FREQUENCY</u>
Farm Supply Shop	Weekly
Audit	Monthly
Accounting	Monthly

SOURCE

MAIN.DBF

CONDITION

STORE = "FSS"

GROUP BY

CATEGORY+SUBCATEG

CONTENT

DESCRIPT PARTNO (ACTBAL)* UNIT PRICE LOCATION ->
IDNUMBER ACCTCLAS

*ACTBAL = calculated field BALANCE-OBLIGED

WEEKLY SALES OFFICE (KAWEMPE) PRICELIST

GENERAL DESCRIPTION

The Kawempe Sales Office will need an updated price list indicating what is available in Kawempe and Twiga and their current price. This report will provide all information necessary to respond to customer requests and to complete a cash sale receipt correctly, such that the movement of stock as a result of the sale will be entered correctly into the computer system.

This report differs from the storekeepers report in the way the goods are grouped, and in certain data elements not needed by the storekeepers. ACCTCLAS is an example.

<u>DISTRIBUTION</u>	<u>FREQUENCY</u>
Sales Office	Weekly
Audit	Monthly
Accounting	Monthly

SOURCE

MAIN.DBF

CONDITION

STORE # "FSS" (ie STORE does not equal "FSS")

GROUP BY

CATEGORY+SUBCATEG

CONTENT

DESCRIPT PARTNO (ACTBAL)* UNIT PRICE STORE LOCATION ->
IDNUMBER ACCTCLAS

*ACTBAL = calculated field BALANCE-OBLIGED

MONTHLY STOCK VALUATION REPORT

GENERAL DESCRIPTION

The purpose of this report is to assist in the monthly valuation of all stock.

This report will present the stock valuation in the traditional manner, but will also provide space in which Accounting may re-appraise actual value of stock by units. Using these reports, completed by Accounting, the Stock Control System could re-calculate stock values based on each of three factors for comparison: COST, PRICE, and AFRVAL (appraised value). Even without the AFRVAL figure, the report should provide useful comparison between stock values calculated on COST and stock values calculated on PRICE.

DISTRIBUTIONFREQUENCY

Accounting

Monthly

SOURCE

MAIN.DBF

GROUP BY

ACCTCLAS (note that after 30 June '90 ACCTCLAS should be changed for all goods to match CATEGORY so that Accounting and Stock Control systems will match. REPLACE ALL ACCTCLAS WITH CATEGORY will achieve this for MAIN.DBF. At the same time, product groups in the Hogia Accounting System will also change to match CATEGORY.

Provide Subtotals and grand totals for all numeric fields.

CONTENT

DESCRIPT IDNUMBER UNIT BALANCE COST COSTVAL* ->
PRICE PRICEVAL* AFRVAL AFRVALTTL*

COSTVAL= COST*BALANCE

PRICEVAL = PRICE*BALANCE

AFRVALTTL=AFRVAL*BALANCE

Kim G. Glenn January 1990

QUERY ITEMS NOT MOVED FOR X# MONTHS

GENERAL DESCRIPTION

For marketing and procurement management it seems useful to be able to identify all items which have not been sold or received over any given number of months.

For this purpose, a report can be generated to identify those items.

DISTRIBUTION

FREQUENCY

UCCU Management

On Demand

SOURCE

MONTHLY.DBF RELATED ON IDNUMBER TO MAIN.DBF

CONDITION

no record is found in MONTHLY.DBF where (MONTH = given month(s) .AND. YEAR = given year(s))

GROUP BY

CATEGORY+SUBCATEG

CONTENT

IDNUMBER DESCRIPT PARTNO (ACTBAL)* UNIT COST PRICE

*ACTBAL = calculated field BALANCE-OBLIGED