# **ACAS**

# **Applewood Computers Accounting System**

**General Ledger** 

**Reference Manual** 

v3.02

THIS MANUAL IS IN REWRITE
At least as soon as I have time to test it but no time soon, so looking for volunteers to do so.

This document forms part of the General Ledger Manual and for all ACAS system components which is the Applewood Computers Accounting System and is:

Copyright © Applewood Computers and Vincent B Coen 1980 - 2025 and later.

#### Which Includes:

IRS – Incomplete Records System (used in place of GL)
Sales Ledger also known as Accounts Receivable and as SL
Purchase Ledger also known as Accounts Payable and PL
Invoicing (module/s added into Sales and Purchase Ledger)
Stock Control also known as Inventory with links to Sales & Purchase
Nominal or General Ledger also referred to as GL

Supplied with commercial versions only and subject to a yearly maintenance fee:

\*Payroll

\*Eshop link processing

Each sub system has its own documentation as well as a complete system overview.

\* Not available as open source.

The ACAS system has grown up from a product written in machine code and assembler for IBM 1401 and ICL 1501 in early 1963/4, to one written in CBasic. Microsoft Basic and finally Cobol in its many guises from Micro Focus Level 1 Cobol, Cis Cobol, ICL 1900, 2900 Cobol, IBM Cobol II and finally Open & GnuCOBOL.

#### This document is to be updated to support v3.02 after system testing.

Date rewritten on to PC - September 1982 Copyright © Applewood Computers

17 Stag Green Avenue Hatfield Hertfordshire AL9 5EB United Kingdom

Support email: vbcoen@gmail.com

Rewritten/Copied to OOo: September 2009.

Revision: 26

Version Date: 18 January 2025 18:43:04
Word Processor: LibreOffice 7.5 or later
v3.02 via the nightly builds.

**X**3579**X**2468

## **Table of Contents**

1 Overview	4
2 GL basic operations	5
3 Special Notes	6
3.1. Current General Ledger versions	6
4 General Ledger Usage Options	
4.1. Accounts Usage	7
4.2. Data Entry Protocol	8
4.2.1 Forced Data Entry Protocol (Batched) Figure 1	8
4.4. Reporting	9
5 Security Procedures & Archiving	
6 Chart of Accounts	
6.1. Profit Centres / Branches	12
6.2. Account Additions	13
6.3. Accounts Amendment / Deletion	14
7 Posting	
8 Final & Interim Accounts	
9 Audit Trail	
10 Reports and their variations	18
11 Appendix A	
11.1. Final Accounts – Proforma Figure 2	19
12 Appendix B	20
12.1. Disc File Layouts - GL	
12.2. System File Cross Reference – GL	20
12.3. Screen Layouts - GL	
12.4. Print Layouts - GL	
12.5. SQL Layouts. Triggers, Procedures - GL	20

#### 1 Overview

This version uses Cobol standard flat indexed & random files as well as offering rdbms SQL i.e., MySql, Mariadb, DB2, Oracle, etc, to aid in source maintenance for users and usability for the smaller company without the facility of a computer support department. GnuCOBOL does not offer common SQL operations. But version 3.02 of the ACAS system supports Mysql, Mariadb and possibly Postgres, DB2 and Oracle as time and requests for doing so are received.

The General (or Nominal) Ledger modules provides a system for recording the financial affairs of an organisation and producing reports thereon. In particular this system produces Trial Balance, Trading, Profit and Loss and Balance Sheets as the final products, with an audit trail consisting of transaction input, posting and ledger reports.

In order to enhance the power of the system a variety of additional facilities are offered as either discretionary or mandatory. These additional facilities fall into four distinct categories as follows:

- (i) General Ledger usage options.
- (ii) Spool options (Automatic on Linux, Unix, Mac (OSX) & Windows systems).
- (iii) Logging options (Only present on some versions).
- (iv) Security procedures and archiving.

Note that these are dependent on the platform in use. Only the last category is mandatory in that the security procedures and their associated recovery procedures are an integral part of the system; but archiving is optional. A separate chapter in this document is devoted to each category.

The General Ledger (or IRS) is the central module of ACAS and with the Sales and Purchase Ledgers forms the core of this integrated system along with Stock Control. Essentially the GL. functions as a stand-alone or integrated module without significant differences. However at the reporting stage there are certain differences when part of an integrated system. This effects in particular Cash Book & VAT reports which may be more comprehensive in an integrated system. Although ACAS is designed as a multi-user system the GL. system is normally used as single user operations, at least during data input.

Users should read the manual ACAS – Building the ACAS system prior to running and here you will find all warning and error messages produce by all elements of the ACAS (Applewood Computers Accounting System).

It is recommended to also read ACAS - IRS User Manual which goes into greater depth and is a more complete manual. IRS has been tested and used for many years by many accountants and book keepers. GL should not be used by people without a book keeper or accountant type background or without such a person available.

The only benefit of using General over IRS is for the use of Profit Centres or Branch accounting, but it should be noted that both can be done using IRS with the usage of account numbering for both main and sub-nominal account codes and the use of the left most digit to record the branch or profit centre.

## 2 GL Basic Operations

For GL. purposes there are three types of account records as follows:

- (i) Header "0"
- (ii) Detail "1"
- (iii) Special "9"

Header records, may not be posted to, and includes a level code in the range 1 to 4 which defines their total level; where 1 is the highest & most inclusive and 4 is the lowest & least inclusive. This is used for reporting.

Detail & Special records are effectively the same except that special records can only be Capital Accounts and define those accounts which are to be included in the optional Source & Applications of Funds report.

For final account purposes, there are eight account types, each with two or more sub-divisions. These are on follow:

A-D	1	Income Accounts	<ul> <li>four possible sub-divisions</li> </ul>
E-H	2	Direct Cost Accounts	- four possible sub-divisions
l-J	3	Sundry Income Accounts	<ul> <li>two possible sub-divisions</li> </ul>
K-N	4	Indirect Cost Accounts	- four possible sub-divisions
O-Q	5	Fixed Assets	- three possible sub-divisions
R-T	6	Current Assets	- three possible sub-divisions
U-V	7	Current Liabilities	- two possible sub-divisions
W-Z	8	Capital Accounts	- four possible sub-divisions

These are described in detail on Chapter 6# and 8#.

### 3 Special Notes

This General Ledger system unlike the rest of ACAS, was written in the 80's by a separate programmer with a brief to utilise some of the methods used in IRS but support for larger amounts to the billions, account numbers of 10 digits and multi branch and Profit centres. Versions from 2.50, only uses 6 digit account numbers and transaction values to 10 Million -1.

### 3.1. Current General Ledger versions

Note that the General Ledger system has had minimal work done to it other than migrating over to the GnuCobol complier, tested by building it and, minor functional testing.

One area of note is that unlike IRS, it closes off and then deletes the posting file each quarter.

This, I feel is wrong, and the IRS method should be adopted, where the posting file is maintained until the end of the financial year end and after End of Year accounts are updated with the brought forward totals etc.

This is possibly a left over from the days of using floppy disks and the like as removable media.

I should point out that for the last 40+ years I have used the IRS system as the General ledger system for my own companies and that of accountants and clients and with limited testing of the GL version have found that all nominal account requirements have been fully covered along with ease of use. but there again I am not an accountant. That said IRS was designed by accountants and is currently still in use by many of them.

## 4 General Ledger Usage Options

In order to provide the maximum of user control over the facilities offered, a parameter controlled approach is adopted. The usage options provided, are divided into three subcategories relating to account usage, date entry protocols and reporting.

### 4.1. Accounts Usage

The user can select either Profit Centre, Branch Accounting or neither, and may elect to have a sub- nominal facility which is the default. Profit Centre and Branch accounting differ only in report headings used. The account numbering system employed, allows for four digit account numbers and two digit profit centres. In normal accounting, profit centre and branch accounts are only employed for revenue items; GL. however, permits this for both Revenue and Capital Accounts. At system set-up either Revenue or Revenue & Capital or none may be specified and whether Profit Centres or Branches are to be used, (In the remainder of this document, except where specifically stated, the name Profit Centres & Branches are used interchangeably). Selection of the Profit Centre facility extends the variety of reports available - see chapter 10#.

In addition to Profit Centres there is also a sub-nominal capability. This provides a maximum of ninety-nine sub-nominals. This is implemented by effectively splitting the account number into two portions a four digits account number and two digit sub-nominal. {Another version of ACAS offers 10 digit nominals and 10 digit sub-nominals for those companies that require a much larger capability}. The "owning" record must have a sub-nominal of two zeros; which may be a header record. The details of reporting with sub-nominal are described in chapter 6#, 8# & 10#.

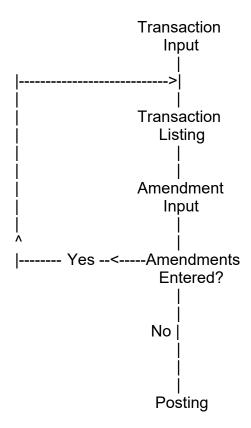
Certain constraints on Account and Sub-Nominal usage will now be discussed:

- (i) If Sales and/or Purchase Ledger modules are to be used, then a block of 999 ledger accounts must be used for each. This is done by specifying that a given leftmost or highest digit can only be used with that ledger, e.g. if the digit 1 is specified for Sales Ledger then the account numbers 1001 through 1999 can only be used for Sales Ledger accounts and the account number 1000 is automatically used by Sales Ledger as the Sales Ledger Control Account. Likewise 2 is normally used for Purchase Ledger with exactly the same processes as for Sales.
- (ii) If profit Centres are used, the profit centre zero (0) must be set-up for use as the consolidated account and a separate profit centre established as the Establishment accounts.
- e.g. if the organisation has four branches North, South, East and West six profit centre codes could be employed:
  - a) "00" Consolidation
  - b) "10" Establishment
  - c) "21" North
  - d) "22" South
  - e) "37" East
  - f) "64" West

### 4.2. Data Entry Protocol

The user can force a posting cycle to be employed, whereby after transactions are input they must be posted and the amendment programs entered - to sign off the batch, before posting can be performed. If amendments are entered, then the cycle is assured to have started anew. This option if selected, ensures a disciplined approach to data entry. Batching is not a mandatory part of the system but batch numbers are supported. The enforced data entry protocol is best shown diagrammatically in the form of a flow-chart as below.

### 4.2.1 Forced Data Entry Protocol (Batched) Figure 1.



**4.3.** to be redrawn using kvisio or similar

## 4.4. Reporting

This relates to the production of ledger reports; once the Security Routines are entered and unless archiving is employed, the possibility of producing the ledgers is lost.

To ensure that ledgers are always printed before a security run, a facility is provided to optionally force ledger output first.

## 5 Security Procedures & Archiving

This chapter deals with the automatic backup and recovery facilities available within the General Ledger Recovery procedures include both computer files and reports. This latter facility is only available if archiving is selected as a system facility and is only applicable to version 1 of the software. Later versions do not use the file naming conventions of '.txt' but '.dat' and the way it works is very dependent on the operating system. Please read the documentation that is supplied for your system.

For v3.02 the system fully supports the use of a database based on Mysql or Mariadb as configured in the system parameter file.

NOTE: The archiving and therefore the usage of generation processing is being revised and will be discontinued for v3.02 of the package.

THIS SECTION IS MOSTLY DISCONTINUED.

THIS IS TO BE UPDATED like most of this manual.

#### 6 Chart of Accounts

Now we deal with the actual ledgers as held on file or in tables, It must be stressed that the Ledger records only holds balances. The balances are signed and obey the convention:

Negative is CREDIT Positive is DEBIT

The ability to produce conventional ledgers showing individual transactions come from the posting file. If archiving is not selected then it is only possible to produce these using current transactions with all previous transactions represented by a single "Carried Forward" Balance. Note that this only applies to the batch system. The real time system always holds posting records.

The basic facilities available under this heading are:

- (i) Add account
- (ii) Update account
- (iii) Delete account
- (iv) Print /Display the Chart

In addition if Profit / Centres or Branches are selected then an additional facility is available to define those profit Centres/Branches in use. This is described first.

#### 6.1. Profit Centres / Branches

A maximum of 99 may be established, one of which must be defined as an "Establishment Account". Additionally the system will automatically define the P.C. Branches code "00" (zero zero) as a consolidation account.

This is done because if more than one P.C or Branches exists, the system will keep track of the total for any particular account. The Establishment code is an exception whose total is normally shown as a separate figure. As regards to the Trial Balance, three levels of detail are available.

Level 1. The collected value including Establishment only

Level 2. The collected value excluding Establishment and the Establishment value

Level 3. Each value separately

Each profit centre must be noted. The names are held on the Ledger file using the a/c (account code) of "9999" and the appropriate P.C. or Branch code. The a/c code of "9999" is therefore reserved and may not be otherwise used.

Break down of each account held in the CoA (Chart of Accounts):

A/C Nominal number 4 numeric digits range 0 - 9. A/C Sub nominal number 2 numeric digits range 0 - 9. A/C Name 24 Alpha numeric digits.

A/C Type 0, 1 or 9.

A/C Placement A through Z. (Will always be stored as upper case).

A/C Level 1 through 4.

A/C number format:

Right most '0' Title for group.
Right most '00' Class title.
Right most '000' Title.

Left most digit A/C Category.

#### 6.2. Account Additions

The user is offered the following input condition:

```
4 digit a/c code + 2 digit sub-nominal code + 2 digit P.C. / Branch code (if selected at system set up).
```

If P.C. or Branches are selected, the user will be offered the opportunity of inputting these on all accounts or revenue accounts only, depending on the P.C. or Branch Level selected. A facility exists to have a given account on all P.C or Branches or any individually specified codes. If codes have been reserved for Purchase and Sales Ledgers, these will not be accepted under the G. L. account set-up.

? In parameter set up is zero accepted for SL & PL (1, 2) values.

? A/C details:-

numbers 4 digits > 0999

Dept 2 digits Name 30 digits

type 0, 1 or 9

Place A thru Z A/C Level = 1 - 4

A/C number rightmost '0' TITLE -> GROUP

'00' Class title?

000 Title

Left most A/C category?

THIS MAY BE SUBJECT TO CHANGE.

## 6.3. Accounts Amendment / Deletion

The user may specify this, to effect all P.C. or Branches or only specified ones.

## 7 Posting

The posting of transactions occurs within a batch environment. A separate update facility being provided which will depend on options selected under Purchase and/or Sales Ledger, picks up transactions generated by those modules and automatically posted.

If Batching is selected in the system set-up, then a batch total must be input and the mechanism is provided which leaves the batch open until the input and actual batch totals agree. The batch number is preserved throughout the system. If automatic VAT handling is selected then the user can input a rate and then specify it to be net, gross or exempt.

A default posting system is adopted as used within IRS, whereby up to 30 different defaults can be selected and posting always debits or credits one of these. There is no single sided entry and no journal posting as such. It is therefore recommended that a journal control A/C (Account) be established and specified as one of the defaults.

Default accounts may be themselves sub-nominal and/or P.C. (profit centres)/branches. However, if a P.C / Branch code is specified when setting up a default then posting to that default can only be to accounts in the same P.C / Branch, an Establishment A/C or an A/C which has no P.C or Branches.

As part of the default set-up two extra defaults, 31 and 32 are provided. If automatic VAT is selected, 31 must be Input Tax (for purchases) and 32 Output Tax (for sales).

The A/C codes specified for these must exist, may be sub-nominal but must not have a P.C or Branch code.

Transactions may be recalled and modified only until they have been updated. Once update has occurred those transactions can not be modified.

The update process deals only with a file entity and ignores the batch except as in as much that it checks to see that all batches are closed.

Therefore a given transaction file must, if batching is selected, have only closed batches, otherwise update is not permitted.

Subject to change for v3.02.

## 8 Final & Interim Accounts

See Appendix for layouts and more to follow here

Find something to translate Wordstar files - given up and out of date anyway.

# 9 Audit Trail

See Appendix for layouts and more to follow

# 10 Reports and their variations

See Appendix for layouts and more to follow

# 11 Appendix A

## 11.1. Final Accounts - Proforma Figure 2

	Income A/Cs	(Credit - Debit)
Less	Direct Cost A/c	(Debit - Credit)
Equal	Gross Profit	
Plus	Sundry Income A/Cs	(Credit - Debit)
Less	Indirect Cost A/Cs	(Debit - Credit)
Equal	Net Profit	
	Fixed Assets	(Debit - Credit)
	Tived Assets	(Debit - Credit)
Plus	Current Assets	(Debit - Credit)
Equal	Total Assets	
Less	Current Liabilities	(Credit - Debit)
Equal	Net Current Assets	
	Capital A/Cs	(Credit - Debit)
Plus	Net Profit	
Equal	Net Current Assets	

## 12 Appendix B

## 12.1. Disc File Layouts - GL

## 12.2. System File Cross Reference – GL

See manual Building the ACAS System.

## 12.3. Screen Layouts - GL

See manual Building the ACAS System.

## 12.4. Print Layouts - GL

## 12.5. SQL Layouts. Triggers, Procedures - GL

All Transferred to Tplan also see sources for up to date information.