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Ledger & CLI Accounting

Shameless Self Promotion

- Principal Consultant @ Adams Information Services LLC
- <http://www.adamsinfoserv.com/>
- HLUG member since 2002
- IBM CATE
- Provides Nationwide services and administration for IBM AIX, pSeries, SAN Storage, HACMP
- Go Debian!

Ledger & CLI Accounting

- Ledger & CLI Accounting
- Other tools
- VC Integration
- Data Import

Ledger

- “Accounting for Engineers” –John Wiegley
- Popular enough to have four clones!
- Plain text data files
- CLI reporting
- Full double entry accounting
- “Just” double entry accounting

Why CLI?

- All the advantages of text files
- Version Control
- Favorite Text Editor
- `Version Control`
- Ledger-mode for Emacs
- **Version Control**

GUI/Web Products

- “Complete” products
- Mybooks <http://appgen.com/>
- Nolapro <http://nolapro.com/>
- Gnucash <http://gnucash.org/>
- SQL-Ledger <http://sql-ledger.com/>

GUI/Web Products

- Professional Services
- Geared toward traditional inventory/sales
- No VC! Binary files or DB
- OSS solutions “Half-baked”

Basic Accounting

- Bank Accounts
- Credit Cards
- Not stocks
- Not full business systems

Lingo

- Accounting
 - “The systematic recording, reporting, and analysis of financial transactions”
- Single-entry Accounting
 - Spreadsheets, columns of numbers, basic sums
- Double-entry Accounting
 - Pairs of postings which always balance

Ledger Lingo

- Journal
 - Data file of transactions (txns)
- Transaction
 - Logical unit containing multiple postings
 - Sum of postings must equal 0
 - Date & Payee
 - One posting can omit an amount to have it calculated

Ledger Lingo

- Posting
 - Every transaction has two or more postings
 - Account & Amount

Sample Transaction

2009/06/26 * (#1006) HAL-PC Membership Renewal

Assets : Checking	-50.00
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Expenses	50.00
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Sample Balance Report

```
$ ./ledger.sh bal
```

```
    -50.00  Assets
     50.00  Expenses
```

Sample Register Report

2009/06/26	HAL-PC Mem	..	Assets : Checking	-50.00	-50.00
			Expenses	50.00	0

Example Layout

- Main.dat
 - Imports all other data files
 - Centralized options
- ledger.sh
 - Call ledger with Main.dat and options
- Checking.dat
 - Example checking account

Main.dat

```
; --*--ledger--*
```

```
; This Main ledger file includes all other required files ,  
; because wildcarding isn't allowed.
```

```
; Fix output to right precision  
D $1,000.00
```

```
; Ledger data files  
!include ./Checking.dat
```


ledger.sh

```
#!/bin/sh
```

```
# Use a specific ledger binary
```

```
LEDGER_BIN=/home/rladams/software/ledger-2.6.1/ledger
```

```
# Use our Main.dat
```

```
${LEDGER_BIN} \
```

```
  -f ./Main.dat \
```

```
  $@
```

Checking.dat

2009/06/20 Opening Balance

Equity 0.00

Assets : Checking 0.00

2009/06/21 Breakfast

Assets : Checking : A -1.00

Expenses

2009/06/22 Lunch

Assets : Checking : B -2.00

Expenses

2009/06/24 Coffee

Assets : Checking -3.00

Expenses

Reports

- Balance
 - With subaccounts?
 - With empty accounts?
- Register
 - Summary
 - Sort
- Print

Balance

```
$ ./ledger.sh bal
```

```
    -6.00  Assets
```

```
    6.00  Expenses
```

Balance w/ Subaccounts

```
$ ./ledger.sh -s bal
      -6.00  Assets : Checking
      -1.00   A
      -2.00   B
      6.00  Expenses
```

Balance w/ Subaccounts + Empty

```
$ ./ledger.sh -sE bal
      -6.00  Assets : Checking
      -1.00   A
      -2.00   B
           0   Equity
           6.00  Expenses
```

Register

```
$ ./ledger.sh reg
```

```
2009/06/21 Breakfast Assets : Checking :A  -1.00  -1.00
                               Expenses          1.00    0
2009/06/22 Lunch    Assets : Checking :B  -2.00  -2.00
                               Expenses          2.00    0
2009/06/24 Coffee   Assets : Checking      -3.00  -3.00
                               Expenses          3.00    0
```

Register Summarized

```
$ ./ledger.sh -s reg
```

```
2009/06/20 - 2009/06/24 Assets:Checking      -3.00  -3.00
                          Assets:Checking:A   -1.00  -4.00
                          Assets:Checking:B   -2.00  -6.00
                          Expenses             6.00    0
```


Register w/ Sort by Date

```
$ ./ledger.sh -S d reg
```

```
2009/06/21 Breakfast Assets:Checking:A  -1.00  -1.00
                  Expenses                1.00    0
2009/06/22 Lunch    Assets:Checking:B  -2.00  -2.00
                  Expenses                2.00    0
2009/06/24 Coffee   Assets:Checking   -3.00  -3.00
                  Expenses                3.00    0
```

Print

```
$ ./ledger.sh print
```

```
2009/06/20 Opening Balance
```

```
    Equity                                0.00
```

```
    Assets:Checking
```

```
2009/06/21 Breakfast
```

```
    Assets:Checking:A                    -1.00
```

```
    Expenses
```

```
2009/06/22 Lunch
```

```
    Assets:Checking:B                    -2.00
```

```
    Expenses
```

```
2009/06/24 Coffee
```

```
    Assets:Checking                      -3.00
```

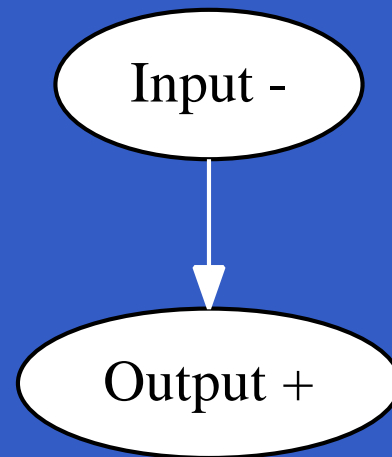
Tags

- Transactions can include a :TAG: on the payee line
- All reports can take =-e '//:TAG:/'= to locate those items

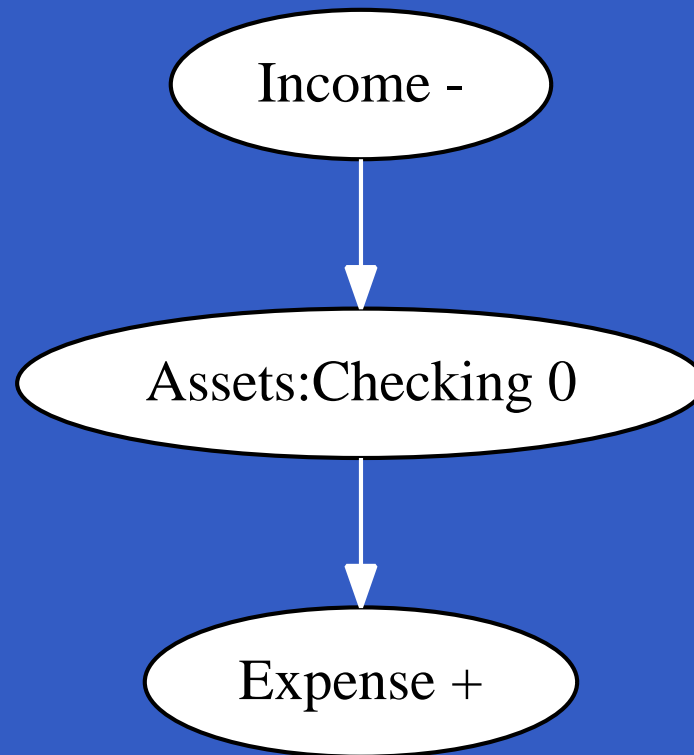
Sample Accounts

- Assets:Checking
- Assets:Savings
- Equity:OpeningBalances
- Expenses:Insurance
- Expenses:Meals
- Expenses:Supplies
- Income:Salary
- Income:Interest

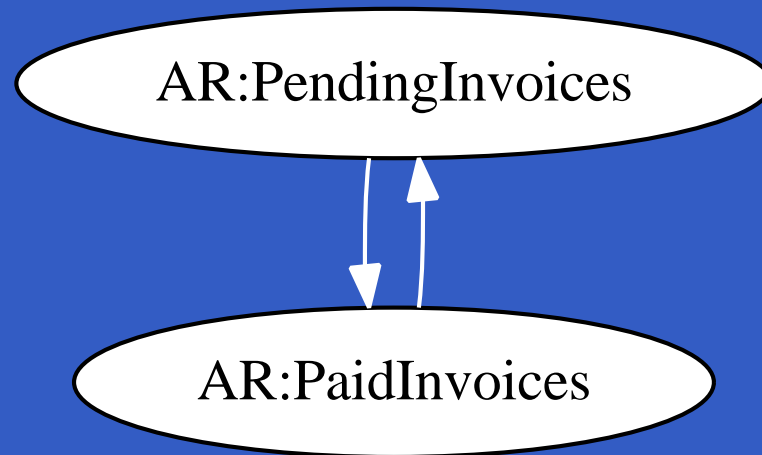
Account "Flow"



Typical Account "Flow"



Internal Account 'Flow'



Envelope Budget Example

- Budget monthly expenses
- Reserve funds from paychecks into “envelope”
 - Paid twice monthly = reserve half total budget
- Pay bills from envelopes
- Every dollar has a purpose!
- Ledger can help track this!

Example Budget

- \$500 biweekly salary
- Expenses
 - Rent \$450/Month
 - Food \$200/Month
 - Utilities \$100/Month
 - Leftover to savings

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Budget Demo

Importing with CSV2Ledger

- <http://launchpad.net/csv2ledger/>
- Take input CSV from banks
- Outputs Ledger Data
- Duplicate Detection
- Inline Editing & Transforms
- Account Matching
- Image Lookup & Attachment

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Import Demo

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Q&A