

Hatha Systems[®] Knowledge Refinery[®]

Commercial Bank:

Software applications receive data from various inputs and provide data through user interfaces, reports, or other means. In the banking industry various transactions accumulate during the day, and then either the customer or the bank can check balances or look at various reports. Some of the data is accumulated in a general ledger, where an analyst can get a high-level view of all accounts.

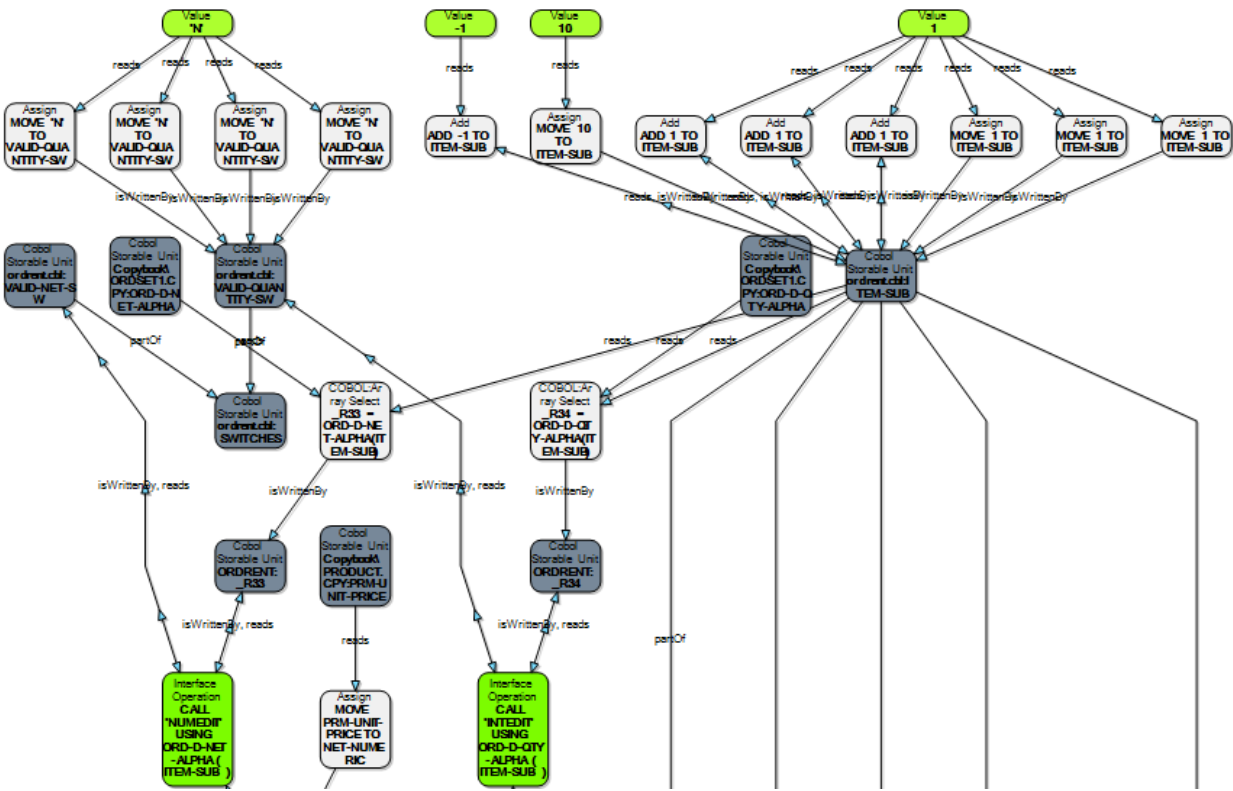
Given the application's capabilities to transform input data into output data, the fundamental question is how does this transformation take place? It is not just a theoretical question, but a very practical one – not only for the software developer, but also for the end users. Unfortunately, the collective knowledge on how output data is derived is sometimes lost.

This was an acute problem for a bank which lost the capacity to explain to its customers and its auditors how the interest or dividends accumulate in their accounts. It was more than an embarrassment, since Federal regulations required the bank to always provide the explanation to an inquiring customer. As the types of accounts were many, and the financial instruments very complex, the remedy required a manual effort that – according to bank's internal calculations – would require many years.

In this particular case, Hatha was able to offer the automation which collapsed the estimated manual time by more than 80%. Questions like “how do I compute ACCUMULATED-INTEREST?” could be answered almost instantaneously based on information accumulated in a repository by Hatha's Knowledge Refinery[®]. A series of specialized tools and diagrams helps discover the right answers. Among them:

- Data flow diagrams that show where the data is coming from, and where it is going;
- Execution path diagrams that show the chain of statements in a program which lead to a final computation; and
- Architecture neighborhood diagrams that show the series of screens, programs, files, and tables through which the data travels from capture to outputs.

The diagram below shows a sample data flow diagram (not the real case discussed above).



Hatha Systems' customer was able to not only provide both an accurate and traceable answer to its inquiring customers, it was also able to leverage such data for its annual audit preparation efforts to prepare the general ledger documentation of customer transactions.