Logical Data Model Replaced

The purpose of this document is to show how I use one logical meta-model to manage many enterprise databases, all the enterprise databases I will ever build. In other words, one logical data model fits all business, and this document begins to show how I manage all my physical databases with that one model. I do not believe it will go so far as teaching someone how to use the meta-model, but it will be a start to that process. This document is a follow up to my "Logical Data Model Missing" document.

Information Architecture

In business we do not control the architecture (scheme) of the information we need to do business. The only thing we can do is associate that architecture to our understanding of general business. In other words, the only thing we can do is relate that architecture to what we know. If all we know is our business, then we have a problem. But, if we already know a common business language, then we can use that common language to facilitate our translation.

International trade began this way. The Jews were disbursed. They had a common language. They learned the local language. They learned many local languages and they associated them with their one common language. That common language key made it easy for them learn languages and to establish international trade.

Business science teaches us a common language. In describing how to plan and control, it uses this language. It uses general terms for business that can be applied wherever the students are disbursed.

The Normalization Problem Again

In my previous document "Logical Data Model Missing" I discussed the normalization problem and how calculations (i.e. computers) need normalization to work properly.

Here I am going to expand on that idea by relating it to information architecture and the meaning of words derived from that architecture.

Each language carries with it an architecture or context from which we gain meaning. To understand anything, we need to preserve that context. We can relate a word to general business to understand it in the context of general business, but at the same time we must preserve its original context for complete understanding.

Normalization means each word has a specific meaning. But, we all know that across any business the meaning of words changes depending on the role that word (or object) is playing in the business. In other words, the meaning is based on context. To preserve meaning we must preserve context, to calculate we must normalize, so we must preserve normal context - generally.

Preserving Normal Context – Generally

Look at any dictionary to see how a specific language relates a specific word to its context within that language. For each word the various contexts are listed. It is like each word is an object and the dictionary is listing the various roles that object plays in

the language. Using those roles, that dictionary is preserving normal context – specifically, specifically to that language. But, to communicate with the outside world, we must preserve normal context – generally. We must relate that word to a general role of a word in a general language. Like the Jews relating the local language to their general language. Sounds complicated, but it isn't. It's just a little complex.

Overview

Reports come into the physical enterprise database, so if we preserve the report, then we are preserving the specific context of the words found in the report. Also, because those reports are from specific business functions, they are reporting specific roles of objects and classes of objects. In that context, the words are normalized. Each word has one meaning from one line of the dictionary. In other words, in the context of the report, each word has a specific meaning.

Reports classify things. The business model changes when new members of a class are reported. New members are automatically associated with the general business model, the same way as the old members. But with new report formats or new classification schemes, the meta-model is required to keep things normalized.

Report classes line up with general business classes. Business science is not new. The people who make business decisions use these reports to make those decisions. The classes found on the functional reports are just business specific terms for general business concepts. For example: a list of customers will be a list of specific customers or specific classes of customer. For someone reading the report for the first time who knows the business function the report came from, it is easy to differentiate customers from locations or products from processes.

Words on the reports are associated with general business objects and classes of objects. In other words, new classification schemes require more thought as to how they relate to general business. But, relating them to general business roles correctly will keep them normalized no matter how you use them.

Summary

The purpose of this document is to show how I use one logical meta-model to manage many enterprise databases, all the enterprise databases I will ever build. In other words, one logical data model fits all business, and this document begins to show how I manage all my physical databases with that one model. I do not believe it will go so far as teaching someone how to use the meta-model, but it will be a start to that process. I bet the Jews used a similar functional role or context method when they were disbursed. Each language has a different architecture so there is no way to translate the words one for one. You have to keep context. The meaning is in the context. The meaning is in the functional reports. I bet international trade began this way.