

## **Design Tip #75 Creating the Metadata Strategy**

By Warren Thornthwaite

In most cases, metadata is a neglected area of the DW/BI system; in a few cases, it's an over-engineered monstrosity. In this design tip we offer an approach to dealing with metadata that we believe is a reasonable compromise between having little or no managed metadata and building an enterprise metadata system. Our recommendation concentrates on business metadata first, making sure it is correct, complete, maintained, and accessible to the business users. Once that's done, provide a way to view the other major metadata stores. Here's a straight-forward, business-value based approach:

1. Use whatever tools you have to survey your system to identify and list the various locations, formats, viewers, editors, owners, and uses of metadata. Where there aren't any tools, you will need to create query or programmatic access to the metadata sources so you can explore and track them.
2. Identify and/or define missing metadata elements that need to be captured and managed. These are typically business elements that will be used more broadly and therefore need to be updated and distributed throughout the system.
3. Once you have a solid list of metadata elements in place, decide on the master location for each. This is the location where the element will be stored and edited. It is the source for any copies needed by other parts of the system. It might be in the relational database for some elements, in the front end tool for others, or even in your organization's repository tool. Try to use all available pre-existing metadata structures like description fields before adding your own metadata tables.
4. Create systems to capture and maintain any business or process metadata that does not have a home. These can be simple front ends that let the user directly edit metadata in its master location. You'll want some data quality checks and a good metadata backup system in place, just in case.
5. Create programs or tools to share and synchronize metadata as needed. This primarily involves copying metadata from its master location to whatever subsystem needs it. The goal is to use the metadata in the master locations to fill in the description, source, business name, and other fields in all the tables and object models all the way out to the front end tools. If the master location is populated right from the start as part of the design and development process, the metadata will be easier to synchronize and maintain on an ongoing basis. Note that copying the metadata from one location to another is an ideal task for your ETL system.
6. Educate the DW/BI team and key business users about the importance of metadata and the metadata strategy. Work with the data steward to assign metadata creation and updating responsibilities.
7. Design and implement a delivery approach for getting business metadata to the user community. Typically, this involves sourcing your front end tool's metadata structures from the master metadata locations. Often, it helps to create a simple metadata repository for

business metadata and provide users with a way to browse the repository to find out what's available in the DW/BI system.

8. Manage the metadata and monitor usage and compliance. Make sure people know the information is out there and are able to use it. Make sure the metadata is complete and current. A large part of the baseline metadata effort is spent building reports and browsers so people can look at the metadata. Managing the metadata means looking at it regularly and making sure it is complete and current.

Even though this is the balanced strategy between nothing and too much, it is still a fair amount of work. Make sure there's time in your project plan's development tasks to capture and manage metadata, including separate tasks for the above steps. And finally, make sure someone on the DW/BI team is assigned the role of Metadata Manager and owns the responsibility for creating and implementing the metadata strategy.