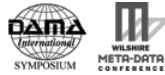


Building Metadata - with what you have around the office

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Agenda



- *Defining Metadata and types*
- *Uses of Metadata*
- *Building a case – doing your homework*
- *Finding the right ROI for Metadata*
- *Example Tools for accessing, retrieving and sharing metadata*
- *Working with what you have around the office*

What is Metadata?



- Metadata describes how, when and by whom a particular set of data was collected. It also captures how the data is formatted, and if any transformations were applied to the data along the way.
- Providing metadata is a guiding principal in Data Warehouse Implementations and has become increasingly important in Web Development

Types of Metadata



- Business
 - Business Descriptions
 - AKA (Also Known As)
 - Business Rules
 - Valid Values
 - Semantic Layer
 - Ownership
 - Reporting
 - Data Dictionaries
 - Quality Control Rules
 - Change Control
- Technical
 - Physical Location
 - Source to target transformations
 - Physical Characteristics
 - Key constraints
 - Indexes
 - Data Models
 - Audit Rules
 - Retention information
 - Table join recommendation
 - User Security



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Uses of Metadata



- Business
 - Clear understanding of Customers, Products etc.
 - Executing business rules, policies, procedures
 - Leverage Information Asset
 - Insure Data Accuracy and Integrity - Ownership
- Technical
 - Accurate movement of data
 - Valid translations
 - Successful Loads
 - Valid data typing and relationships
 - Handling nulls
 - Enforcing integrity
 - Indexes

Building your case

- Understand your corporate meta-data needs
- Identify a project or two that you can leverage to facilitate a meta-data launch
- Find specific in-house examples where lack of meta-data cost you \$\$, time, resources
- Find others who are as passionate about it as you



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Define your System Requirements for example:

- Need to import metadata from other sources
- Able to create custom metadata fields
- Ability to have users interact with metadata
- Logical and user friendly interface
- Allows easy maintenance of file structures
- Good search and retrieval functions
- Prefer some automation

Metadata ROI

- One source, one entry point, one set of information to maintain
- Reusable, Concise
- Common Language to run the business
- Analysis time and change process cost considerably reduced by documentation process
- You can either be general about ROI or...

Another way to explain Cost Savings

- Staff inquiries about data
 - Estimate 4 hrs research 10 times a year
 - $(4 \times 10 \times \$50) = \$2,000$
- External data inquiries –
 - Estimate 1 hrs research 30 times per year
 - $(30 \times 1 \times \$50) = \$1,500$ Enable future
- Reuse of existing data - \$5,000 to \$25,000
- Avoid legal Liability - lawyer & court costs who knows how many \$\$\$

Real Life Metadata ROI

- Intel saves \$6 for every \$1 it spends on Metadata, JULY 18, 2005 ([COMPUTERWORLD article](#))
- St. Jude's Children's Research Hospital reduced cost of data mart work from \$40,000 down to \$4,000 @ of 75 marts (www.hyperion.com/customers/stories/us_StJude.pdf)

Some Cost Scenarios

- Three key price ranges:
 - Low End Single User (\$30 - \$100) minimal control
 - Medium Cost Workgroup (\$2500 - \$5000) assumes lots of self development
 - High Cost Enterprise or Library (\$15,000 - \$30,000 ++) May require some consulting work to get set up.
- Web portal customized solutions range from \$5000 to \$15,000 – plus staff development time and set up time.

Simple – low Budget Start-up

- Ms-Access Database
- MS-Access Reports and Dashboard
- Vb.Net front-end applet
- Other Idea - **wikipedia**



- Risks – minimal security
- Standalone
- High responsibility on part of admin person

Moderate Budget Building some steam

- Alternative 1
 - SQL Server Database
 - Business Objects Reporting on
- Alternative 2
 - MySQL
 - Mondrian or Jvet



- Risks – still not too automated or streamline
- Usually requires internal development
- 2nd option – risky shareware

Upscale – people taking it more seriously

- More robust database like Sql, Oracle, DB2
- Full XML / HTML development allowing User interactivity



- Higher Cost
- Becomes a “System”
- More opportunity for Business
Owner to keep up-to-date

Serious Budget Dollars

- \$2.5 million, for the Metadata Solution Center for Excellence that supports the department's implementation of the President's National Strategy for Homeland Security. Identifying metadata and establishing common metadata standards for electronic information relevant to homeland security represent key enablers for information sharing, the department says.



Steps to take

- Identify Metadata of interest in your office
- Evaluate tools you have on hand
- Create a simple metadata model
- Develop a partnership relationship with the person who has the most “skin in the game”
- Look for a project you can latch (leech) onto.
- Start Small – design for the future
- Make your metadata purposeful and needed.

Building Metadata with What You Have Around the Office

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Thanks for your time and Interest!

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- <http://www.idealliance.org/papers/xml2001/papers/html/04-02-04.html> - great article about LockHeed Martin tool selection process
- <http://www.taxonomystrategies.com/presentations/256,1,FAQs>
About Taxonomies & Metadata – great reference document on Taxonomies as related to Metadata

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