Getting Business Value out of Metadata

Metadata everywhere “nor any drop to drink”

IRMAC
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Agenda

- Introductions
- Background
- Metadata Mapper Application Overview
- Demo of the Tools
Who Are We?

Katrina Easton, BA, MBA

- Many years experience in “data” in positions from Enterprise Data Architect, Business Architect, to Data Architecture Manager
- Senior Enterprise Architect (current) at Intact Financial
- Past Employers: Standard Life, Sears, Manulife, CIBC

John Tench, MA (Cantab.)

- Experienced Data Architecture consultant
- Past Clients: TD, Foresters Insurance, Intact Financial Corporation, BMO, Lafarge, CIBC, Scotiabank, RBC …
- Specialisations: Metadata and Data Governance, Data Warehouse and BI, EIM and Strategic Data Models…
About Intact

Intact insurance @ a glance

- Intact is the largest provider of home, auto and business insurance in Canada.
- Products are distributed through a nation-wide network of insurance brokers or sold directly to consumers through call centres and the Internet.
- 10,000 employees offer products and services through the Intact Insurance, belairdirect, and Grey Power brands.
- In 2009 Intact became a widely-held Canadian company and changed its name from ING Canada to Intact Financial Corporation.
Background

- In 2008, a data warehouse project was in progress to deliver integrated business data for analysis and reporting
- Data models documented in Erwin
- Spreadsheets used for mappings
- So far so good....
But ……

- Data “hops” many times before its final destination

- Each hop mapped in a different spreadsheet in a different format, except when in a combined format

- Thousands of fields and mappings involved – 100K+

- Business need to know origins of each piece of data
In addition ....

- Difficult to keep mappings and models in synch
- Difficult to determine impact of a change to source field
- Data definitions held in multiple places and not reconciled
- Data definitions not consistent with the actual data
- Heavy reliance on systems experts
What did we do?

- Hired John ..... 
- He developed the Metadata Mapper application to consume, validate and publish metadata
  - Data models
  - Mapping spreadsheets
- Developed a standard mapping template
- Architecture Review Board assesses if model and mappings standards are used
Mapper Architecture

Erwin models

Metadata Mappings

Power Designer model

EDM model

Data profiling

Data dictionaries

Impact analysis reports

Data lineage reports

Data profiling results

Validation reports

Harmonized code values

Metrics
Metadata Mapper Functionality

- Validates that mappings and models are in synch
- Publishes models, end-to-end mappings
- Provides data lineage and impact analysis
- Cross-reference to Enterprise Data Model
- Secure access to data profiling results
- Hot links to code values
- Customisable loading of ETL mapping spreadsheets
- Metrics on quality of metadata
  - Fields without definitions
  - Incorrect mappings

"As a business Analyst I have used the Metadata Mapper as a 'one stop shop' to understand the data flow, trace data lineage, refer to transformation rules, do impact analysis and many more innumerable ways to assist my analysis. It has made me more efficient"  
Mallika Ranjan, Intact BA
From Doug Stephens, Intact Senior Architect -

“A few recurring uses for me of the Metadata Mapper tool

- **Tracking data lineage** – especially when looking into data quality/consistency issues, understanding which of our source systems are able to populate a field
- **Impact analysis** - if a source system is changing the use of a field, introducing new values..., to see where that ends up
- **Data definition and naming** - because we have a third party model sitting at the front end of our internal staging databases (and namings don't follow our internal conventions), a quick way to check how a field is known in the front end”
Metadata News

- Co2 GL extract has been added.
- EDW Business Objects Universe is now available with traceability to the Claims EDW database and back to source.

2010-04-12
The new End to End Mapping interactive report provides all the information flows between selected models. For example, you could use this report to identify all the Halcion and Classic sources for BIS Feed tables.

2010-03-02
Production data models have been updated with EDE changes.

2010-01-04
The Metadata Mapper is now ‘live’.

- Metadata has been provided on a ‘best efforts’ basis. Review and validation processes are being established to improve accuracy.
- The Halcion data model has been derived from copybooks as of December 2009.

End to End mapping report

Source – target mappings

Codes

Map

Enterprise Data Model

Source – target mappings

Codes

Map

Database

Data Profiling
(subject to access control)

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Tools and Demo