









Fachtagung · 03. - 04. April 2014 · Chemnitz

## **SOFTWARE-MIGRATION** aktuell

# Metadata Application Understanding Software Migration

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Mgr. of Development





- The Rochade Metadata Landscape
- Governance, Compliancy, Regulation
- The Art to Master it
- About Sharing Information
- New Challenges





The Rochade Metadata Landscape







#### It's all about Data

- Physical Structures
  - Type
  - Size
- Location
- Used Values
- Ownership





#### It's all about Data

- Logical Structure
- ER Model (optional)
- Data Type
- Constraints
- Permissible Values
- Reference Collection
- Ownership

Technical Representation





## It's all about Data

Conceptual Data Element

Technical Representation

- Business rules
- Reference Data
- Sensitivity / Data Protection
- Access Rights
- Ownership





#### It's all about Information

Critical Business Element

Conceptual Data Element

Technical Representation

- Business Term
- Definition
- Detailed Description
- Data Concepts
- Business Value





# Meta Data Stack and Data Lineage

Critical Business Element

Conceptual Data Element

**Technical** 

Representation

Physical Implementation **Business Process** 

Data Lineage for
Business Information

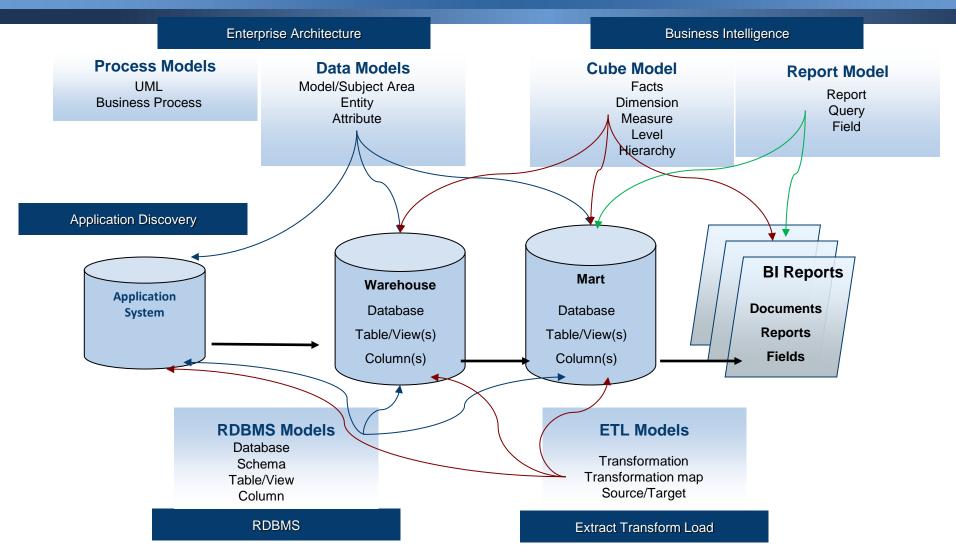
Data Lineage on technical level

Program, Analysis, Transformation ...





#### Metadata Area's of interest







#### **Rochade Interfaces**

#### AD

#### Assembler

COBOL (pec) PL/1 (pec) JAVA (pec)

> JCL SQL BTEQ

many more via ASG Becubic's CAE technology

#### EA

**AllFusion Process Modeler** 

**ARIS Toolset** 

Borland Together ControlCenter

**CA ERwin Data Modeler** 

**Casewise Corporate Modeler** 

COOL:Biz

COOL:gen

**Embarcadero ER/Studio** 

**IBM Rational Data Architect** 

**IBM Rational Software Modeler** 

IBM Rational Software Architect

IBM Rational Systems Developer

**IBM Rational Rose** 

**IBM Rational XDE** 

**Metastorm ProVision** 

microTool case/4/0

**Select Component Architect** 

**Software AG Predict** 

Sybase PowerDesigner

**Telelogic System Architect** 

#### **RDBMS**

Greenplum
IBM DB2/zOS
IBM DB2/LUW
IBM iSeries
IBM IMS
IDMS
Microsoft SQL Server
Microsoft Access
MySQL
Netezza
Oracle
PostgreSQL

**Sybase ASE** 

**Teradata** 

#### ETL

IBM DataStage
Informatica PowerCenter
Microsoft SSIS
Oracle PL/SQL
Oracle Data Integrator
Oracle Data Warehouse
Builder
Oracle Golden Gate
Teradata BTEQ

#### BI

IBM Cognos
MicroStrategy
Microsoft SSRS
Microsoft SSAS
OBIEE
Essbase
SAS
SAP Business Objects
Crystal Reports

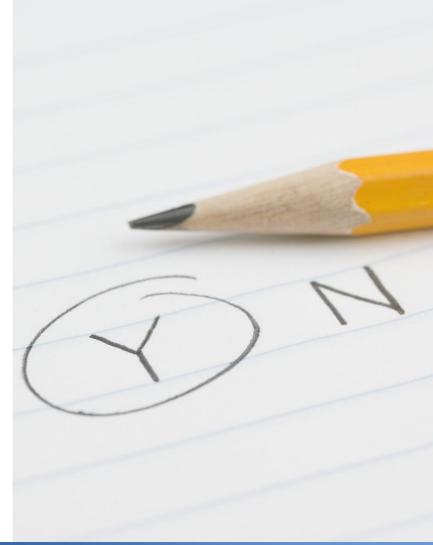
(pec) – by pro et con

- Cobol & PL/I 1999
- Java 2001
- Based on compiler technology
- Reliable data flow analysis
- Complete data dictionary





Governance Compliancy Regulation







- Support and implementation of processes to ensure compliance with regulatory requirements in the business area
- As defined by Government and other regulatory organizations
- Compliance Standards:
  - Sarbanes-Oxley
  - Basel II/III BCBS 239
  - Solvency
  - HIPAA





#### **Conceptually**

- Inventory & Triage
- Identify business critical processes
- Focus on business critical applications
- Legacy application modernization choices
- retaining same technology level vs.

application migration-> contact pro et con

#### **Technically**

- Update your business glossary
  - Processes, elements &constraints
- Identify critical business elements
- Observe related business constraints
- Derive technical constraints
- Focus on critical data elements
- Following impact analysis & data lineage leads to
  - critical applications
  - obsolete or redundant applications

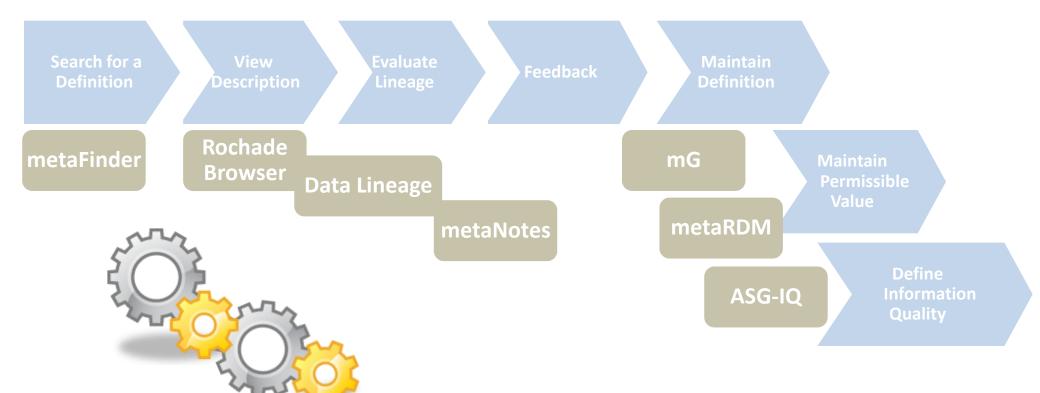




## Integrated metaApps











The Art to Master it







## **Data Dictionary**

It is about technical implementation

**Technical Representation** 







## Glossary

#### Critical Business Element

Physical Implementation

#### It is about Definitions

- Governance
- Compliance
- Transparence
- Location of critical data
- Agreements







## Reference Data Management

**Critical Business** Element **Reference Data Permissable Values Physical Used Values Implementation** 

It is about enumerated value domains

- Contents of critical data
- Governance
- Data Privacy
- Application integration







## Information Quality Management

**Critical Business** Element **Conceptual Data Reference Data** Element **Permissable Technical** Representation **Values Physical Used Values Implementation** 

It is about information quality

- Governance
- Risk analysis
- Compliance
- Broken information lineage
- Metrics







**About Sharing Information** 







#### **User Communities**



Conceptual Data Element

Technical Representation



**Business Users** 



Subject Matter Experts



**Developers** 



**DBAs** 



**Architects** 



Data Analysts





**Huge User Experience Difference** 

#### User Communities – Paradim Shift



Find, View, and Feedback

10000s



Maintain the Information



Administer the Repository



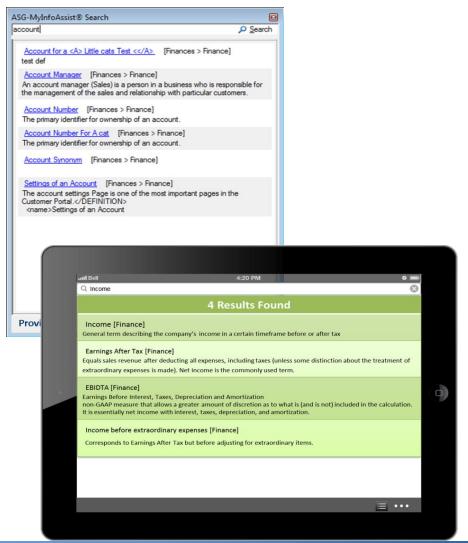
Implement
Repository
based
Applications

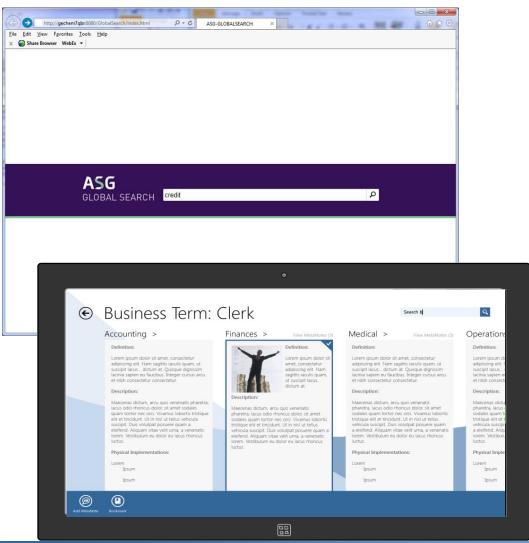
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## **Target Systems**









## Handle New Challenges

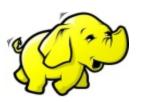






#### Big Data – Rien Ne Va Plus?

- Technology is different and more data driven
- Demands from the Business community are growing
- Critical Business Information is growing
- Reference Data Management becomes even more important
  - Extended to support tagging
- Information Quality Management is shifting the focus
  - From: caring about the quality of your stored information
  - Towards: analyzing and understanding the quality of your stored information
- Metadata becomes even more important







#### It is Almost the Same

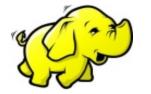
Critical Business Element

Conceptual Data Element

Technical Representation

Physical Implementation

- Other technology
- Just new scanners
- Just other metadata sources
- Quality analysis and quality assurance



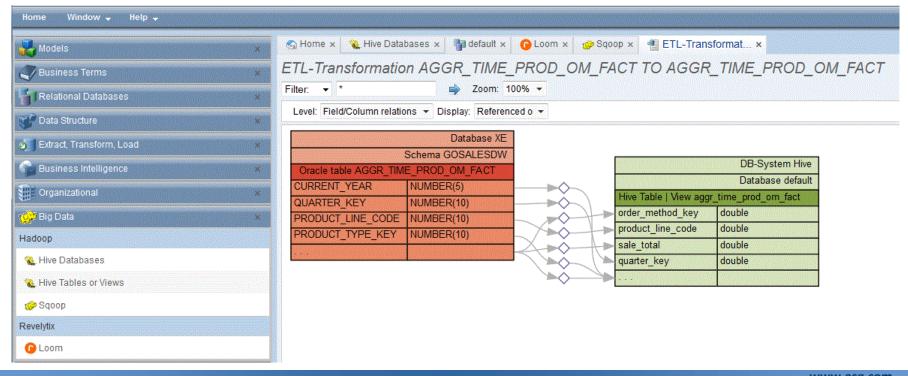
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## Gathering Big Data Metadata

- Rochade provides the complete view
  - Provenance, Data Lineage between operational, DW, BI, Big Data
  - Governance for Big Data Metadata















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## Vielen Dank

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