SAP BusinessObjects Information Steward

Michael Briles
Senior Solution Manager
Enterprise Information Management
SAP Labs LLC

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Agenda

- Challenges with Data Quality and Collaboration
- Product Vision & Value Proposition
- Solution Today – Key Capabilities
- Demonstration
- Q & A
Challenges with Data Quality and Collaboration
Business Challenges with Data Quality and Data Integration Projects Today

**No** environment for business users to collaborate with IT regarding data issues

**No** consistent repeatable way to measure and score data quality

**No** clear strategy and discipline for improving data quality

**Minimal** reuse of data assets; lots of data duplication

**Not** sure what the business definition is

**No** ability to analyze data dependencies across systems

**Lack** of visibility to where the numbers or data is coming from

and many more…
Introducing
SAP BusinessObjects Information Steward

Product Vision & Value Proposition
Business Analytics Solutions from SAP
Most complete offering

Analytic Applications
By Industry
- Financial Services
- Public Sector and Healthcare
- Manufacturing
- Consumer Products
- Retail and Telco
- Utilities and more...

By LoB
- Service, Sales, and Marketing
- Procurement
- Supply Chain
- Finance
- Sustainability
- IT, HR, and more...

Enterprise Performance Management
- Strategy Management
- Planning, Budgeting, and Forecasting
- Profitability and Cost Management
- Financial Consolidation
- Disclosure Management

Business Intelligence
- Reporting and Analysis
- Dashboards and Visualization
- Data Exploration
- Mobile
- BI Platform

Governance, Risk, and Compliance
- Enterprise GRC
- Access Risk Management
- Global Trade Services
- Continuous Transaction Monitoring
- Enterprise Information Management
- Data Services
- Master Data Management
- Event Processing
- Content Management
- Information Governance

Data Warehousing
- Enterprise Data Warehousing
- High-performance Analytic Solutions
- Data Mart Solutions

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SAP BusinessObjects Information Steward
Product Overview

Empower data stewards with a single environment to discover, assess, define, monitor, and improve the quality of their enterprise data asset.

**Discover**
- Discover & understand enterprise data (Data profiling, Metadata management)
- Catalog data assets

**Define**
- Define business terms, validation rules, cleansing rules, models
- Define data ownership: Assign data ownership, accountability, and roles

**Monitor & Remediate**
- Monitor data quality
- Surface data quality score in business user applications
- Workflows to resolve data quality issues
SAP BusinessObjects Information Steward
Single solution, multiple benefits

Collaborative environment for your IT and business users

EMPOWER

GOVERN

IMPROVE

SAP BusinessObjects Information Steward
Target Personas for Information Steward

**Data Steward**
- Reviews data quality scorecard
- Analyzes Scorecard

**Data Analyst/IT**
- Defines rules
- Reviews data quality dashboards
- Defines a scorecard
- Analyzes profiling result
- Adds sources to the project

**IT Administrator**
- Creates a project
- Creates a connection
- Defines user security
- Configures Information Stewards application
- Schedules a task
SAP BusinessObjects Information Steward
Value propositions

Improve information governance and quality

**EMPOWER**
Empower Business Users
Bridge gap between business and IT with collaborative solution for driving information management initiatives

**GOVERN**
Govern Enterprise Information
Enable effective data governance with the industry’s first combined data profiling, metadata management, and data quality monitoring solution

**IMPROVE**
Improve Information Transparency
Give instant visibility into data quality levels and origins with end-to-end impact analysis and data lineage
Empower Business Users
What’s new with SAP BusinessObjects Information Steward

No other competitor offers a single business user-oriented solution for metadata management, data profiling and data quality monitoring

EMPOWER

- **View** how information measures up against information governance rules and standards
- **Share information** regarding governance and data quality metrics while also tracking progress toward quality goals
- **View data quality reports via dashboards and scorecards**, or via sophisticated inquiries into data origins and lineage
- **Enable business users** to visualize how data quality is impacting business
- **Increase efficiency and reduce costs** with one solution for data profiling, metadata management, and data quality monitoring
Govern Enterprise Information
What’s new with SAP BusinessObjects Information Steward

Good data governance depends on creating consistent rules and guidelines about who can access, change, add, share, or integrate enterprise information

GOVERN

- Define data ownership in accordance with your organization’s needs, roles, and accountability principles
- Help pinpoint error hot spots, which often indicate areas in which governance controls must be refined or adjusted
- Trace data lineage all the way from a report down to a source, gaining a better understanding of your complete business intelligence environment
- Create business term glossary with “metapedia”. Integrates and consolidates metadata from many sources, linking business terms with data elements so business people can better understand data definitions
Improve Information Transparency
What’s new with SAP BusinessObjects Information Steward

Gain reliable insight in your Enterprise information quality and integrated transparency on bad data root cause and usage

IMPROVE

- **Comprehensive visibility** into data quality at all levels of the information management landscape
- **Scorecard visualizations** of data quality from various perspectives and levels
  - High-level data quality scorecards
  - Validation rules oriented dashboard
  - Table/column data quality dashboard
- **Analyze root cause** with drill down capability from scorecards and dashboards to rules, data profile, data and business terms
- **Impact analysis** that allow you to assess the merits of changes in your data structures and sources, resulting in reduced risk and improved data quality
Available Today
SAP BusinessObjects Information Steward 4.0

Key Capabilities
## How can Business and IT Users Leverage SAP BusinessObjects Information Steward?

<table>
<thead>
<tr>
<th>Module</th>
<th>Function</th>
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<tbody>
<tr>
<td>Data Quality Scorecard</td>
<td>Apply “balanced scorecard” towards data quality performance</td>
</tr>
<tr>
<td></td>
<td>Measure and track data quality performance against metrics</td>
</tr>
<tr>
<td></td>
<td>Anticipate and spot data quality weakness</td>
</tr>
<tr>
<td>Data Profiling</td>
<td>Analyze if data matches business definitions and expectations</td>
</tr>
<tr>
<td></td>
<td>Validate data completeness, sparseness, redundancy, pattern distribution</td>
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<tr>
<td></td>
<td>Analyze cross system data dependencies using business views</td>
</tr>
<tr>
<td>Validation Rules</td>
<td>Work with IT to define data validation rules</td>
</tr>
<tr>
<td></td>
<td>Apply validation rules against sources to continuous monitor data quality</td>
</tr>
<tr>
<td></td>
<td>Reuse validation rules in data migration and integration</td>
</tr>
<tr>
<td>Metapedia</td>
<td>Work with business users to define and agree on business terms</td>
</tr>
<tr>
<td></td>
<td>Link business terms to data elements to assist business users understand data definitions</td>
</tr>
<tr>
<td>Metadata management</td>
<td>Trace data lineage from BI reports to data sources</td>
</tr>
<tr>
<td></td>
<td>Assess impact of data quality or changes</td>
</tr>
<tr>
<td></td>
<td>Reuse data assets that is available</td>
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</tbody>
</table>
Key Software Components of SAP BusinessObjects Information Steward

Data Profiling
DQ Monitoring

Metadata Management

Cleansing
Rules

Business Term
Taxonomy

New functionality added to metadata management

Existing SAP BusinessObjects Metadata Management capabilities

Part of SAP BusinessObjects Data Services and DQM functionality surfaced on IS

Existing SAP BusinessObjects Metadata Management capabilities
Key Software Components of SAP BusinessObjects Information Steward

- **Data Profiling**
- **DQ Monitoring**
- **Metadata Management**
- **Cleansing Package Builder**
- **Metapedia**

**New** functionality added to metadata management

Existing SAP BusinessObjects Metadata Management capabilities

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Existing SAP BusinessObjects Metadata Management capabilities
Use Cases for Data Insight
Data profiling and data quality monitoring

Key Drivers

- Improve information trustworthiness
  - Continuously improve data quality
  - Provide visibility into quality of data

- Reduce risks for propagating bad data
  - Find data anomalies and remediate data issues

- Easily understand data and its relationships
  - Create data mapping rules for data integration
  - Define data cleaning and validation rules

- Show ROI for data quality initiatives
  - Quantify impact of poor data on business
  - Speed up data integration projects with better DQ information
  - Validate governance controls are effective on data quality (for example: investment in MDM)
Visualization of Data Quality
High-level balanced data quality scorecard

Scorecard to measure DQ from a Data Steward’s perspective

Drill into scorecard details

Key Quality Dimensions (KPI for data)

Latest quality score

Data quality score metrics

Quality trend
Visualization of Data Quality
Validation rules oriented dashboard

Select Key data domain, Quality dimension, Rule, and Rules binding to analyze data quality based on any combination of these attributes

View validation rule definition

Switch to Workspace to profile data and create validation rules

Analyze sample failed data

Analyze impact of failed data
Visualization of Data Quality
Data quality scores and trend at table, column, and rule level

Table level score measures number of rows that passed all rules.

Column level score measures number of rows that passed all rules for this column.

Rules level score measures rows that passed this rule.

Detailed statistics of number of failed and total rows.

Data quality trend over different time ranges.

Sample failed rows for analysis of the last rule execution.
Interactively Identify Data Quality Problems

Multi-column data profiling

**Address profiling**
measure % valid addresses, % invalid addresses, % can be corrected

**Dependency profiling**
measures the degree to which two sets of values are related on one another

**Redundancy profiling**
measures the degree of data overlap between two data sets

**Uniqueness profiling**
measures the degree of uniqueness of one or more columns of a table

![Image of Information Steward interface](image)
Interactively Identify Data Quality Problems
Table/column data profiling

- Summary indicators for low cardinality, uniqueness and sparseness
- View column properties, value, string, completeness, and distribution profiling statistics

Tools for analyzing sample profiling result rows
Drill from profiling result to into value distribution
Drill from value distribution to sample profiling result rows
Interactively Identify Data Quality Problems

Data redundancy

There can be multiple advanced profiling tests (tasks) for a table.

Visualize data relationship

Drill into sample data
Key Software Components of SAP BusinessObjects Information Steward

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Existing SAP BusinessObjects Metadata Management capabilities
Use Cases for Metadata Management
BI-centric metadata management

"Where did this number come from?"

"How will this change in the source impact my BI reports?"

Key Drivers

- Understand entire BI environment
- Trace data lineage from a report to sources
- Change impact analysis for source to reports and users
- Manage metadata from various data sources, data integration technologies, and BI systems
- Lower TCO by tracking usage and promote reuse of data and reports
- Improve decision making and regulatory compliance
SAP BusinessObjects Metadata Management Overview

- Consolidates metadata from various BI related sources
- Integrates metadata in a central metadata repository
- Relates metadata to enable auditing, usage, change impact, and data lineage analysis
- Supplements metadata with custom attributes, annotations
- Creates universe from relational objects
Metadata Integrators

Metadata Management Integration to:

BI Systems

Databases

ETL

Modeling Tools

Metadata Integrators bundled with Information Steward

SAP Software: BI Platform, Data Services, Data Federator and SAP NEtWeaver BW
NON SAP Software: CWMXML (CWM), RDBMS: MSSQL Server, DB2, Teradata and JDBC Sources

Other Metadata Integrators available *

Altova
Borland
CA
COBOL
Embarcadero
EMC
Gentleware
Silverun
Knightbridge (HP)
IBM
Informatica
Micsosoft
MicroStrategy
NoMagic
OMG
Oracle
SELECT
SPARX Systems
SUN
Sybase
Teradata
Tigris
Visible Systems Corp
W3C

* Other metadata integrators available via Meta Integration Technology, Inc. (MITI)
Key Software Components of SAP BusinessObjects Information Steward

Data Profiling
DQ Monitoring

Metadata Analysis

Cleansing Rules

Business Term Taxonomy

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Cleansing Package Builder (CPB)

Key Drivers

- Empowers data stewards/domain experts to develop custom data cleansing solutions for any data domain
- Cleansing Package Builder is available within Information Steward
Why Do We Need Cleansing Package Builder?
Unique data for ‘non-party’ data elements

Input Data
Glove ultra grip profit 2.3 large black synthetic leather elastic with Velcro Mechanix Wear

Parsed Output

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Category</strong></td>
<td>Glove</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Large</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>Synthetic Leather</td>
</tr>
<tr>
<td><strong>Trademark</strong></td>
<td>Pro-Fit 2.3 Series</td>
</tr>
<tr>
<td><strong>Cuff Style</strong></td>
<td>Elastic Velcro</td>
</tr>
<tr>
<td><strong>Palm Type</strong></td>
<td>Ultra-Grip</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Black</td>
</tr>
<tr>
<td><strong>Vendor</strong></td>
<td>Mechanix Wear</td>
</tr>
<tr>
<td><strong>Standard Description</strong></td>
<td>Gloves – Synthetic Leather, Black, size: Large, Cuff Style: Elastic Velcro, Ultra-Grip, Mechanix Wear</td>
</tr>
</tbody>
</table>
Key Software Components of SAP BusinessObjects Information Steward

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DQ Monitoring

Metadata Management

Cleansing Package Builder

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Use Cases for Metapedia
Business term encyclopedia

Key Drivers

- Promote proactive data governance with common understanding and agreement on business concepts
- Enable business users to understand data attributes used in BI environments with business user oriented descriptions
- Central location for defining standard business vocabulary (words, phrases, or business concepts)
- Organize business terms into categories that align with business subject matter or lines of business
Why SAP?
The best choice for EIM

- **One place** for data stewards and business analysts to collaborate and govern their data asset

- **First and only integrated solution** - metadata management, business glossary, data quality assessment, data quality monitoring, and cleansing package builder solution

- **Various perspectives** to understand and analyze trustworthiness of data

- **Easy and secure** access to a rich set of metadata data sources
Information Steward Services - Migration

For the migration from Data Insight to Information Steward we have created three migration packages at fixed fee & fixed scope.*

**Small Complexity**
- Number of sources < 3
- Number of column queries < 10
- Referential Integrity Test = 10
- Custom queries = 0

15 days

**Medium Complexity**
- Number of sources < 10
- Number of column queries < 100
- Referential Integrity Test = 10
- Custom queries < 30
  - Various complexity

50 days

**High Complexity**
- Number of sources < 25
- Number of column queries < 300
- Referential Integrity Test = 10
- Custom queries < 70
  - Various complexity

120 days

* Pricing being finalized. Meta Data Management upgrade not included.
**Information Steward Services – Quick Start**

Our Quick Start Package is designed for green-field implementations to assist our customers to quickly take advantage of IS 4.0; fixed fee and fixed scope.*

<table>
<thead>
<tr>
<th>Quick Start Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Install IS environment</td>
</tr>
<tr>
<td>• Knowledge transfer</td>
</tr>
<tr>
<td>• Setup and execute data profiling jobs</td>
</tr>
<tr>
<td>• One data domain from two source systems</td>
</tr>
<tr>
<td>• Configure CPB dictionaries based on the profiles</td>
</tr>
<tr>
<td>• Design DQ and other dashboards</td>
</tr>
</tbody>
</table>

10 days

* Pricing being finalized.
Further Information

**SAP Community Network**

Business Analytics community
http://www.sdn.sap.com/irj/boc

EIM page
http://www.sdn.sap.com/irj/boc/nw-informationmanagement

EIM discussion forums
http://forums.sdn.sap.com/index.jspa#4

**Social Media**

Twitter
http://twitter.com/sapmdmgroupp
http://twitter.com/sapcommnet

Facebook
https://www.facebook.com/sapcommunitynetwork

**Upcoming Webinars**

Business Analytics Webinar Series
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Contact information:

Michael J Briles
Senior Solution Manager – Enterprise Information Management
E-mail: michael.briles@sap.com