Empowering business users to guarantee quality data through SAP BusinessObjects Information Steward

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Learning Points

- SAP BusinessObjects Information Steward Value Propositions, Vision and Product Overview

- Modules and Use Cases of Information Steward
  - Data Profiling
  - Metadata Management
  - Metapedia
  - Cleansing Package Builder

- How Business and IT Users can leverage capabilities of SAP BusinessObjects Information Steward
Agenda

- Vision of SAP BusinessObjects Information Steward and Benefits
  - Modules in Information Steward and Use Cases
    - Data Insight
    - Metadata Management
    - Metapedia
    - Cleansing Package Builder
  - Leveraging SAP BusinessObjects Information Steward
- Conclusion
Business Challenges with Data Quality and Data Integration Projects Today

**IT**

- **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

**BUSINESS USER**

- **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…
SAP BusinessObjects Information Steward
Single solution, multiple benefits

Collaborative environment for your IT and business users

EMPOWER

GOVERN

IMPROVE

SAP BusinessObjects
Information Steward
SAP BusinessObjects Information Steward
Value Propositions

Improve information governance and quality

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

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

**Provide Information Transparency**
- Give instant visibility into data quality levels and origins with end-to-end impact analysis and data lineage
Empower Business Users

Provides 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

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

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
SAP BusinessObjects Information Steward
Product Vision and Overview

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

Discover & understand enterprise data
- Data profiling
- Metadata management

Discover
- 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 4.0
From Vision to Product

Integrated Environment with Multiple Perspectives

- Integrated metadata management, business glossary, data quality assessment, and data quality monitoring, cleansing package builder
- “One place” for data stewards, and business analysts to collaborate and govern their data asset
- Various perspectives to understand and analyze trustworthiness of data
- Easy and secure access to a rich set of metadata & data sources
Business Benefits with SAP BusinessObjects Information Steward

Reduced complexity of IT landscape by deploying a single solution

Increased efficiency and reduced costs of data quality projects via a collaborative environment

Close the gap between IT and business users

Improved data management processes using solutions that support better governance

Enhanced data quality via increased transparency of data quality, origins, and lineage
Enables Business and IT Collaboration through Data Governance Metrics and Scorecards

IT can easily share data quality metrics to business users and involve them in owning the data problem.

Business users can easily see how their information measures up against information governance rules and standards.
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
Agenda

- Vision of SAP BusinessObjects Information Steward and Benefits

- **Modules in Information Steward and Use Cases**
  - Data Insight
  - Metadata Management
  - Metapedia
  - Cleansing Package Builder

- Leveraging SAP BusinessObjects Information Steward

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Modules in Information Steward

- Data Insight
- Metadata Management
- Metapedia
- Cleansing Package Builder

- Data Profiling
- DQ Monitoring

- New functionality added to metadata management

- Metadata Analysis

- Existing BOMM XI 3.1 capabilities

- Business Term Taxonomy

- Existing BOMM XI 3.1 capabilities

- Cleansing Rules

- Part of DS/DQM functionality surfaced on IS
Use Cases for Data Insight: Data Profiling and Data Quality Monitoring

Data Insight can help you to discover and understand data relationships, uncover data anomalies and quality issues, validate data compliance to business requirements, and continuously measure and improve data quality.

Data Insight is valuable for anyone who wants to improve the trustworthiness of their information, reduce risks for propagating bad data, understand their data and data relationships, and show ROI for data quality initiatives.
Data Insight
Data profiling and data quality monitoring

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

- Reduce risks for propagating bad data
- Find data anomalies, 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)
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
- Customize viewing option

Tools for analyzing sample profiling result rows
Drill from profiling result into value distribution
Drill from value distribution to sample profiling result rows
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
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
Visualization of Data Quality
High-level balanced data quality scorecard

- Latest quality score
- Data quality score metrics
- Quality trend

Drill into scorecard details
Scorecard to measure DQ from a Data Steward’s perspective
Key Quality Dimensions (KPI for data)
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
Use Cases for Metadata Management: BI-Centric Metadata Management

Metadata Management can help you to understand your entire BI environment, trace data lineage from a report to sources, and perform change impact analysis from source to reports.
Metadata Management
Information You Can Trust with End-to-End Metadata Management

- Understand where the data used in your applications comes from and how it is transformed
- Assess change impact analysis for source to reports
- 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

“Where did this number come from?”

“How will this change in the source impact my BI reports?”
Use Cases for Metapedia: Business Term Encyclopedia

Metapedia enables business users to define business terms, categorize the terms, and associate the terms to objects in the metadata repository. Having a central location for all standard business vocabulary helps promote proactive data governance.
Metapedia
Business Metadata Encyclopedia

• 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 all standard business vocabulary of words, phrases, or business concepts

• Organize business terms into categories that align with business subject matter or lines of business

Group Business Terms in Category Hierarchy

Export & Import Business Terms

Define Business Terms and their description

Assign Data Steward to each Business Term
Use Cases for Cleansing Package Builder:
Transfer Business User Expertise into Cleansing Package

The cleansing package is used by the Data Cleanse transform in Data Services to parse and standardize party and non-party data. In the Cleansing Package Builder module, Data Steward users can create custom cleansing packages or modify existing cleansing packages in a business user-oriented environment.
Cleansing Package Builder
Transfer Data Steward Expertise in Cleansing Package Content

• Empowers data stewards/domain experts to develop custom data cleansing solutions for any data domain

• Cleansing Package Builder is available within Information Steward

• Cleansing Packages can directly be published to the Data Services Repository

• Data Services Job Designer can embed the Cleansing Package in any Real-time or Batch Job for Data Cleansing Action
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# How Can Business and IT Users Leverage SAP BusinessObjects Information Steward?

<table>
<thead>
<tr>
<th>SAP BusinessObjects Information Steward</th>
<th>Details</th>
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| **Data Quality Scorecard**             | - Apply “balanced scorecard” towards data quality performance  
- Measure and track data quality performance against metrics  
- Anticipate and spot data quality weakness |
| **Data Profiling**                     | - Analyze if data matches business definitions and expectations  
- Validate data completeness, sparseness, redundancy, pattern distribution |
| **Validation Rules**                   | - Work with IT to define data validation rules  
- Apply validation rules against sources to continuous monitor data quality  
- Reuse validation rules in data migration and integration |
| **Metapedia**                          | - Work with business users to define and agree on business terms  
- Link business terms to data elements to assist business users to understand data definitions |
| **Metadata management**                | - Trace data lineage from BI reports to data sources  
- Assess impact of data quality or changes  
- Reuse data assets that are available |
| **Cleansing Package Builder**          | - Define party or non-party cleansing packages  
- Apply business knowledge directly into defining the package  
- Automatically generate parsing rules used by the Data Cleanse transform in Data Services |
SAP BusinessObjects Data Services & SAP BusinessObjects Information Steward

- Data Steward / Data Analyst
- IT / Developer
- IT / Administrator

SAP BusinessObjects Information Steward

Data Profiling  Data Quality  Metadata Management  Data Integration ETL  Text Analytics

SAP BusinessObjects Data Services

Information Platform Services
SAP BusinessObjects BI platform
Monitor and track the quality of your data versus Improving the identified data quality issues

Information Steward
Providing you with the insight and knowledge about **how good and how trustworthy** your data is and allows you to track down to the root causes for your bad data.

Data Services / DQM
Enabling you to **improve, enrich and correct** any kind of wrong, bad or incomplete data on one platform using Data Integration and Data Quality functionality.
Extend the portfolio according to your Use Case

SAP BusinessObjects Information Steward
Business User focused User Interface

Extend with Data Services / DQM to clean up identified bad data, to set up your Data Quality Firewall at point of entry, to apply your DQ rules to any batch processing activity.

Extend with Information Steward to add full enterprise wide Data Governance support, adding fully combined Metadata Management and Data Profiling.

SAP BusinessObjects Data Services
IT/Technical User focused User Interface
SAP BusinessObjects Information Steward
How Information Steward supports MDM

- Profile and assess quality of MDM data
- Data quality firewall on data entering MDM with exposed Validation Function to Data Services for Real-time Jobs
- Continuous monitoring and integration with MDM processes to remediate data issues by exposing failed records to MDM
- Data quality scorecard for MDM content
SAP BusinessObjects Information Steward
For existing SAP Business Suite, MDG or MDM customers

SAP Business Suite, MDG, MDM
Profile your data directly to get initial insight into Data Quality Level

Monitor constantly to identify changes early

Embed validation functions via Data Services Real-time jobs
SAP BusinessObjects Information Steward
For existing SAP Business Intelligence Customers

SAP Business Intelligence Platform
Get transparency on given data assets AND content quality of the assets

You knew where the data was coming from, now you can also directly see how good it is
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Conclusion

- SAP BusinessObjects Information Steward 4.0 is **one place** for data stewards and business analysts to collaborate and govern their data assets.

- Modules in Information Steward are centered around:
  - Data Profiling
  - Metadata Management
  - Metapedia
  - Cleansing Package Builder

- Data Insight capabilities in SAP BusinessObjects Information Steward help users to uncover data quality issues, validate data compliance to business requirements, and continuously measure and improve data quality.

- Business and IT users can leverage many important capabilities of SAP BusinessObjects Information Steward for their data governance initiatives.
Key Learnings

- SAP BusinessObjects Information Steward empowers business and IT users to discover, assess, define, monitor, and improve the quality of their enterprise data.

- Information Steward is the first and only integrated solution comprising of metadata management, business glossary, data quality assessment, data quality monitoring, and a cleansing package builder.

- SAP BusinessObjects Information Steward allows users to improve information governance and data quality.
Thank you for participating.

Please remember to complete and return your evaluation form following this session.

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