

Data Quality Monitoring Tool - Functional Documentation

1.0 Overview

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Menu

Business Context and Application Overview

Business Context:

The Data Quality Dashboard is implemented on Qlik Sense, designed to serve multiple organizational domains, including Human Resources (HR), Marketing and Sales, Structured and Shared Services, Finance, Supply Chain, and Procurement.

Key Processes:

The dashboard supports critical data quality management processes across the involved domains. It includes:

- **Data Quality Monitoring:** Enables users to continuously track data quality metrics, ensuring the integrity, accuracy, consistency, timeliness, conformity, uniqueness and completeness of data.
- **Failed Data View:** Provides users with a centralized view of failed data records, allowing them to identify and review data quality issues that needs cleansing.

Application User Profile

Users Profiles with access to the Data Quality Dashboard to monitor data quality metrics and view failed data records can:

Data Stewards leads the DQ process by participating in the DQ rule creation as well as the DQ issue identification and resolution

- **Defines** the DQ rules from gathered requirements and the profiled data in a functional way and complete the rules attributes. If the rule is simple he can also implement it.
- **Continuously track** data quality metrics across various DQ dimensions such as integrity, accuracy, consistency, timeliness, conformity, uniqueness, and completeness.
- **Access** a centralized view of failed data records to identify data quality issues.
- **Review** the failed data to proceed with the cleansing process.
- **Refine or log** new issues eventually and prioritize them based on the impact/severity.
- **Lead the DQ issue resolution** and align with stakeholders on solving strategy. Prepare the fixing plan and follow the cleansing /remediation process.
- **Monitor** the DQ metrics and assess impact.

Rule Owner is responsible for DQ under his scope by ensures the conformity of the DQ rules and the root cause of the DQ issues.

- **Review The DQ Rule:** Approve or reject the proposed DQ rule already reviewed by business.
- **Validate the issue Root Cause** found by the steward as responsible of ensuring the data quality meets the identified targets under his scope

For more information refer to the data governance model [here](#).

Application Type

Data Product Type

- ☒ Dashboard
- ☐ Report
- ☐ Advanced analytics
- ☐ AI
- ☐ Others <specify which one>

Technologies

- ☐ BW
- ☐ Tableau
- ☒ QlikSense
- ☐ Talend
- ☐ Dataiku
- ☐ Others <specify which one>

Data Sources

Note: list of all applications and various environment

- ☒ SAP PF1 (Production environment)
- ☒ SAP WP1
- ☐ SAP PI1
- ☒ BW (versions)
- ☐ iCare CRM
- ☐ CORE CRM
- ☒ SAP SuccessFactors

Target Users:

Domains data stewards, data owners, data governance teams, and other stakeholders.

For more information refer to the data governance model [here](#).

2.0 Data Quality Process

The Data Quality process and it's key activities involved can be found [here](#).

2.1 Data Quality Dashboard Objective/Opportunities

The primary objective of the Data Quality Dashboard is to empower data stewards and other stakeholders within each domain to maintain high standards of data quality. By implementing automated data quality rules and offering a centralized dashboard for monitoring and reviewing failed data, the dashboard provides data stewards with an opportunity to ensure that data across all domains is accurate, up-to-date, and consistent. This, in turn, supports informed decision-making and operational efficiency across the organization.

3.0 Application Feature Overview

Information about the existent features in the application.

N/A

4.0 Business Objects

For any questions about business objects contact Data Governance or the Enterprise Information Architect.

5.0 Functional Specification

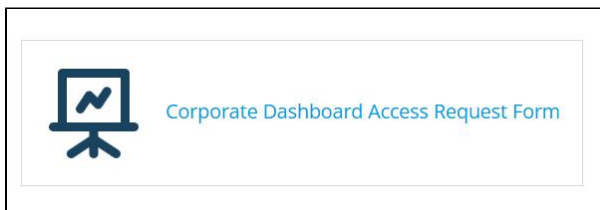
5.1 Dashboard

The scope, reload frequency, screens, filters and KPIs are documented in the [Wiki Page for DQ QlikSense Documentation](#).

5.2 Dashboard access

To request access to the application:

1. submit a Corporate Dashboard Access Request Form



2. Then Select DT- Data Quality Monitoring Dashboard as the dashboard Name

Dashboard Name (required)

DT - Data Quality Monitoring dashboard

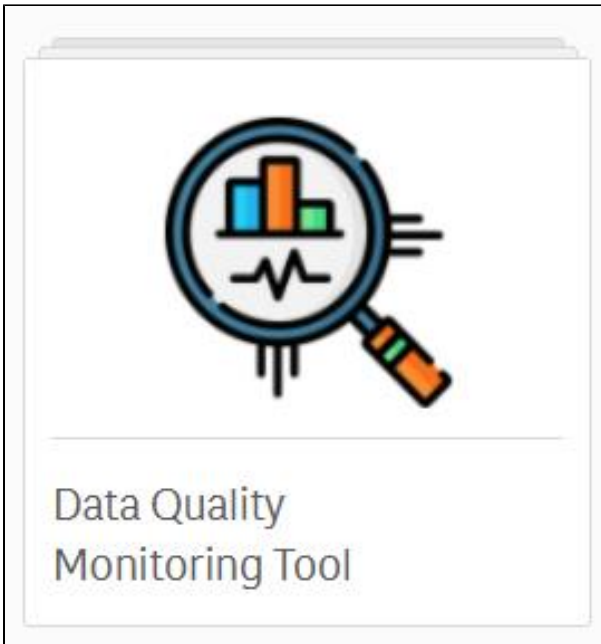
3. Submit request

To access the application:

1. Once access is granted, go to <https://qliksense.solvay.com/hub>, then select SBS from the streams menu on the left side.



2. Select Data Quality Monitoring Tool



5.3 Rules Definitions & Data Input

Overview:

The Key Performance Indicators (KPIs) within the Data Quality Dashboard are defined based on data quality rules specified by data stewards from each domain. The rules define the criteria for evaluating the quality of data and are used to calculate the KPIs displayed in the dashboard. These rules are categorized under various data quality dimensions to systematically monitor and enhance data quality, and help in identifying data quality issues, thereby providing actionable insights to maintain high data quality standards.

The following rules are currently present in the dashboard.

1. Marketing & sales

Rule ID	DQ dimension	Business Name	Functional description	Source Systems	Tables
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MRK-3	Uniqueness	Duplicate customer	Customers with the same name, address, VAT and Account Group.	SAP PF1 SAP WP1	KNA1
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2. Structures & Shared

Rule ID	DQ dimension	Business Name	Functional description	Source Systems	Tables
SSR-1	Consistency	No active plants linked to obsolete companies	# of active plants linked to obsolete companies / total number of active plants	SAP PF1 SAP WP1	T001W T001K
SSR-2	Consistency	No active material codes connected to obsolete plant	# of active materials in obsolete plants / total number of active materials	SAP PF1 SAP WP1	MARC T001W T001K
SSR-9	Consistency	No active materials linked to obsolete sales org	# of obsolete sales organizations linked to active material(s)/ Total number of sales organizations linked to active materials in material sales views	SAP PF1 SAP WP1	T001W T001K MVKE TVKOT

3. Finance

Rule ID	DQ dimension	Business Name	Functional description	Source Systems	Tables
FIN-1	Consistency	Active CCs to L4 in the ZCBS hierarchy	The rule checks if all "Active" Cost Centers are in "Level 4" in ZCBS hierarchy EXCEPT the Cost Centers that are in EDISCXX, they are in Level 4 but they should be blocked and be Inactive.	SAP BW	BW_QRY_C_COS TCTR_001
FIN-3	Consistency	Accuracy of assigning "Inactive" Cost centers to the EDISCXX node	The rule checks if all Cost centers in EDISCXX node are inactive	SAP BW	BW_QRY_C_CO STCTR_001
FIN-4	Consistency	All cost centers are assigned to an active GBU Cluster	The rule checks if all Cost centers are in active GBU Cluster	SAP BW	BW_QRY_C_CO STCTR_001
FIN-5	Conformity	SRM7 responsible codification	The rule checks if the position responsible field of the cost center has 8 digits and the first 3 digits (left to right) need to start with "500"	SAP BW	BW_QRY_C_CO STCTR_001
FIN-6	Consistency	All cost centers are assigned to a BSA	The rule checks if the BSA group is assigned to the cost center	SAP BW	BW_QRY_C_CO STCTR_001
FIN-7	Consistency	Cost Centers with Profit Centers	The rule checks if all the cost centers have a profit center associated	SAP BW	BW_QRY_C_CO STCTR_001

4. Human Resources

Rule ID	DQ dimension	Business Name	Functional description	Source Systems	Tables
HRS-1	Conformity	Legal Entity is active	The status of the object "Legal entity" to which an active employee is allocated is active.	SuccessFactors	EmpJob FO. Company
HRS-2	Conformity	Business Unit is active	The status of the object "Business Unit" to which an active (Employee Status is Active or Active leave) employee is allocated is active.	SuccessFactors	EmpJob FO. Business Unit

HRS-3	Conformity	Location Group (site) is active	The status of the object "Location Group" to which an active employee is allocated is active.	SuccessFactors	EmpJob FO. Location Group
HRS-4	Conformity	Location (PA/PSA) is active	The status of the object "Location" to which an active (Employee Status is Active or Active leave) employee is allocated is active.	SuccessFactors	EmpJob FO. Location
HRS-5	Conformity	Cost Centre is active	The status of the object "Cost Centre" to which an active (Employee Status is Active or Active leave) employee is allocated is active.	SuccessFactors	EmpJob FO. CostCenter
HRS-6	Conformity	Incumbent's Position is active	The status of the object "Position" to which an active employee is allocated is active.	SuccessFactors	EmpJob Position
HRS-13	Completeness	Supervisor is assigned	All active people have a supervisor assigned.	SuccessFactors	EmpJob Position
HRS-14	Consistency	Cadres have Pay grade between S15 and S27	For cadres there is a consistency between the Employment Type and the Pay grade	SuccessFactors	EmpJob
HRS-18	Consistency	Cost Center is the same at Position and Job Info.	Cost Center is the same at Position and Job Info.	SuccessFactors	EmpJob Position
HRS-19	Consistency	Business Unit is the same at Position and Job Info.	Business Unit is the same at Position and Job Info.	SuccessFactors	EmpJob Position
HRS-23	Accuracy	External workforce have Position Grade "Not applicable"	External Employees, Trainees and Apprentices have Position Grade "Not applicable"	SuccessFactors	EmpJob
HRS-24	Accuracy	External workforce have Pay Grade "Not applicable"	External Employees, Trainees and Apprentices have Pay Grade "Not applicable"	SuccessFactors	EmpJob
HRS-25	Accuracy	Sales Cadre have SIP Bonus Plan	Sales Cadre must have SIP Bonus Plan	SuccessFactors	EmpJob EmpCompensation
HRS-28	Completeness	Cadres should always have a bonus plan assigned	Cadres have a bonus plan assigned	SuccessFactors	EmpJob EmpCompensation
HRS-29	Completeness	Cadres have annual indicative salary	All Cadre employees must have annual indicative salary in EC	SuccessFactors	EmpJob EmpCompensation
HRS-30	Completeness	Cadres have Annual Salary (9ANS)	All Cadre employees must have Annual Salary (9ANS) recorded in EC	SuccessFactors	EmpJob EmpCompensation
HRS-34	Consistency	Indicative Salary amount is the same as the Annual Salary (9ans)	For all Cadre employees the Indicative Salary amount must be the same as the Annual Salary (9ans)	SuccessFactors	EmpJob EmpCompensation

Detailed information on the rules with their functional, technical specifications and the data inputs are documented in [a centralized Google Sheet](#).

Data Quality Dimensions:

The following are the data quality dimensions with their definitions under which the KPIs are grouped to assess the quality of data within Solvay.

Dimension	Definition
Accuracy	Degree to which data correctly reflects the real world
Completeness	Achieved when all the data required for a particular use is present and available to be used
Conformity	Achieved when the data is conforming to a pre-defined business rule/syntax (e.g. format, type or range)
Consistency	Achieved when data values do not conflict with other values within a record or across different data sets and sources
Integrity	Ensures that all the data in a database can be traced and connected to other data/Degree to which a defined relational constraint is implemented between two data set
Timeliness	Indicates whether the data is available when expected and needed and represent reality from the required point of time (Degree to which specified data values are up to date between data change and processing)

Uniqueness	Measures the number of unique values and highlights if there are any data duplicates
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6.0 System view (Architecture)

The system view (Architecture) can be found in [the technical documentations](#).

7.0 Non-functional Descriptions

Please populate the relevant section and delete those that are not applicable.

7.1 Security

The dashboard is secure from unauthorized access, access only granted to authorized Users.

7.2 Refresh of the Data

The data is refreshed weekly, every Monday.