

# Talend Data Quality Portal

User and Administrator Guide

6.4.1

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#### **Preface**

#### 1. General information

#### 1.1. Purpose

This User and Administrator Guide explains how to use and administrate *Talend Data Quality Portal* functions in a normal operational context.

Information presented in this document applies to Talend Data Quality Portal 6.4.1.

#### 1.2. Audience

This guide is for business users and data analysts in charge of checking the quality of data and collecting statistics and information about that data.

This guide is for administrators in charge of managing/configuring document templates, access rights and the end-user page in *Talend Data Quality Portal*.



The layout of GUI screens provided in this document may vary slightly from your actual GUI.

#### 1.3. Typographical conventions

This guide uses the following typographical conventions:

- text in **bold:** window and dialog box buttons and fields, keyboard keys, menus, and menu options,
- text in [bold]: window, wizard, and dialog box titles,
- text in courier: system parameters typed in by the user,
- text in italics: file, schema, column, row, and variable names,
- The icon indicates an item that provides additional information about an important point. It is also used to add comments related to a table or a figure,
- The icon indicates a message that gives information about the execution requirements or recommendation type. It is also used to refer to situations or information the end-user needs to be aware of or pay special attention to.
- Any command is highlighted with a grey background or code typeface.

# 2. Feedback and Support

Your feedback is valuable. Do not hesitate to give your input, make suggestions or requests regarding this documentation or product and find support from the **Talend** team, on **Talend Community** at:

https://community.talend.com/



# **Chapter 1. About Talend Data Quality Portal**

This chapter introduces *Talend Data Quality Portal* as a web-based monitoring and reporting tool used by administrators and business end-users.

#### 1.1. Main concepts

*Talend Data Quality Portal* is an application that provides web-based data quality monitoring and reporting that can be customized by the Business Intelligence (BI) administrator.

This web-based application uses the SpagoBI business-intelligence software in conjunction with *Talend Data Quality* in order to monitor data quality metrics. It extends the dynamic reporting and monitoring capabilities of *Talend Data Quality* to help organizations apply data quality metrics and support data quality reporting enterprisewide. Data quality metrics are presented in graphical forms based on the results of different analysis that are stored in the dedicated data quality datamart.

Through the administrator page of *Talend Data Quality Portal*, the BI administrators can manage the functional structure that classifies document templates. The BI administrator can also configure security and document sharing.

Through the end-user page, business users can access and use certain types of reports with the modalities previously defined in the parameters configuration and according to the specific rights assigned to them by the BI administrator.



The SpagoBI version used in Talend Data Quality Portal is SpagoBI 5.2.0.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at <a href="http://forge.objectweb.org/project/showfiles.php?group\_id=204">http://forge.objectweb.org/project/showfiles.php?group\_id=204</a> or check <a href="https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/">https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/</a>.

#### 1.2. Why to use the Portal

Talend Data Quality Portal can act as a Business Intelligence layer that connects to the data quality datamart. The Portal can be used to publish and distribute data quality reports to various groups in the organization. These reports can act as technical specifications of data quality and will help technical teams to achieve a business decision on the data.

Users can publish to the Portal reports about the results of the profiling analyses done in the **Profiling** perspective of *Talend Studio*. These reports help managers or business users to see the improvement or degradation in the quality of the enterprise data.

It is also possible to create custom reports using the Jasper or Birt engines and publish them to the Portal, or to create user groups and publish separate reports to each user group.

A typical life cycle in the Portal could be:

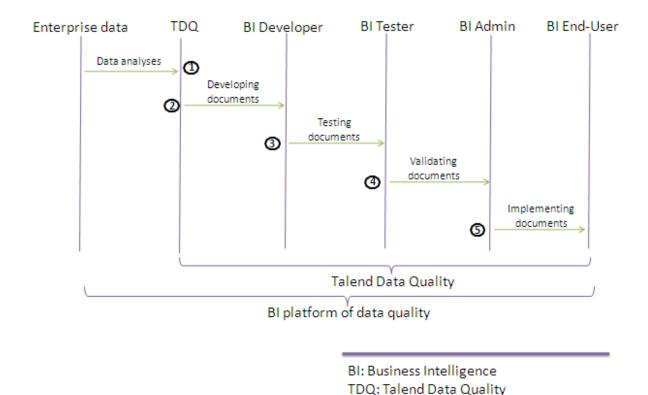
- Users of the **Profiling** perspective of *Talend Studio* create analyses/reports and use a MySQL or an Oracle database to store the profiling results in the data quality datamart. For further information, check the data profiling part in the *Talend Studio User Guide*
- Users use *Talend Studio* to create and deploy Jobs to run the reports periodically using the **tDqReportRun** component. For further information about this component, check the data quality chapter in the *Talend Components Reference Guide*.
- Business users can access the Portal in order to visualize/export/share the reports without launching the studio, and eventually provide feedbacks to the management groups.

Business users would watch the data quality reports on a regular basis when data often change, due to batch loads for example, in order to make sure that the data quality rules and constraints (thresholds) are still verified after every load.

• Experience users may do customize analyses on the datamart with extra utilities like Custom Reports, provided in SpagoBI on which *Talend Data Quality Portal* is based.

## 1.3. Stages of building document templates

The below figure illustrates the stages of building document templates in *Talend Data Quality Portal BI* platform.



- ① Talend Data Quality Portal analyzes the enterprise data, produces analytical reports and saves them in its datamart.
- The BI Developer uses the analyses in *Talend Data Quality Portal* database to develop document templates. This is the proper state of every analytical document that has to be developed, corrected, modified or improved, and, therefore, it is the initial state of every new analytical document.
- 3 The BI Tester verifies the formal correctness of the developed document templates and if they fulfil the requirements before making them available to be implemented in the end-user web page. This is the state of an analytical document which has to be tested in order to check if it works correctly returning the requested result for each possible configuration.
- The BI Administrator validates the tested document templates and registers them in the end-user web environment page to make them available to the BI end-users.
- The BI end-user can use all the document templates in a 'validated' state, according to his role and with the modalities previously defined in the parameters configuration. This is the state of a document template that has been properly developed, tested, and validated and can now be employed by the final user.



Talend Data Quality Portal groups the administrator, developer and tester roles under one unique role: BI administrator. When you access the Portal using the administrator login information, you have the rights of a developer, tester and administrator at the same time.

#### 1.4. User roles

Referring to the stages to build an analytical document, users of *Talend Data Quality Portal* platform can have a specific function assigned by the administrator.

Users can be classified into 4 different groups:

- · Administrator: deals with configuration and security aspects,
- Developer: creates or modifies document templates,
- Tester: verifies the formal correctness of the registered document templates and if they fulfil the requirements.
- End-User: uses all the developed document templates in a **Released** state, according to his/her role and with the modalities previously defined in the parameters configuration by the BI administrator.



Administrators, developers and testers are also users and, therefore, they can act as specialized users with additional functions.



Talend Data Quality Portal groups the administrator, developer and tester roles under one unique role: BI administrator. When you access the Portal as an administrator, you can: create document templates, test the document templates, validate the tested document templates to make them available for the end-user and finally manage the end-user page and security aspects. However, as a BI administrator, you can assign the specific rights to access Talend Data Quality Portal as a pure developer or tester.

After developing the document template, you must update its state to **Test**. You can then test the document template, and depending on the test results, you can change the document state back to **Development** or to **Released**. When the document template is in the **Released** state, the end-user can use it in the end-user page of *Talend Data Quality Portal*. For detailed information on managing document templates, see *Document management*.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at http://forge.objectweb.org/project/showfiles.php?group\_id=204 or check https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/.

#### 1.5. About SpagoBl

SpagoBI is an open source Business Intelligence (BI) software that enables you to make better decisions by efficiently accessing and analyzing business data.

It is based on Spago, a J2EE framework for the development of web and multichannel applications in enterprise environments.



The SpagoBI version used in *Talend Data Quality Portal* is SpagoBI 5.2.0.

SpagoBI offers the following classes of Business Intelligence features: data mining, Custom Reports, OLAP, reporting and dashboards. These features are all accessible in an Intranet mode.

For more information about using SpagoBI to create OLAP, Custom Reports and KPI reports, you can download the SpagoBI quick start guide from SpagoBI Documentation at http://forge.objectweb.org/project/showfiles.php?group\_id=204.



# **Chapter 2. Getting started**

This chapter guides you through the basics to access the administrator and end-user pages of *Talend Data Quality Portal*.

It also provides a short description of these pages.

### 2.1. Administrator page

Through the administrator page of *Talend Data Quality Portal*, administrators can manage document templates and configure security and document sharing.

#### 2.1.1. Logging in

The Talend Installation Guide will guide you through the steps of installing Talend Data Quality Portal.



Make sure that you have correctly configured your IP address before starting the Portal. For more information, see *IP address configuration*.

To start Talend Data Quality Portal web application, do the following:

1. Type the Portal address into your web browser as the following: http://[server address]:8580/tdqportal/, and then press **Enter** on your keyboard.

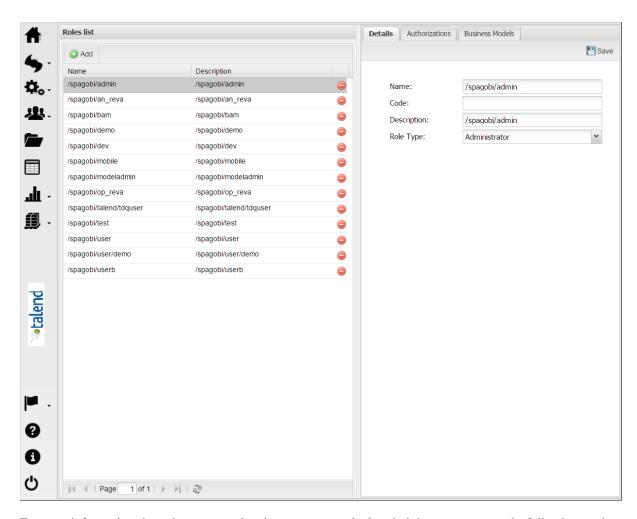


If Talend Data Quality Portal is installed on a port other than the by-default one (port 8580), make sure to include the correct port name in the address.

2. From the home page of *Talend Data Quality Portal*, log in using *tdq\_admin* as username and *tdq* as password to access the administrator page of the web user interface.



The figure below illustrates the administrator page of the web user interface of Talend Data Quality Portal.

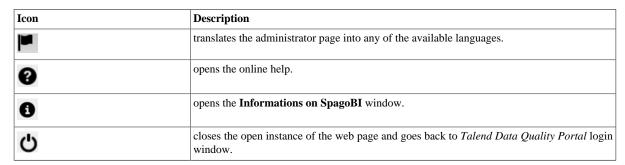


For more information about the menus and options you can see in the administrator page, see the following section.

#### 2.1.2. Describing the page

The toolbar to the left of the administrator page contains icons that provide you with quick access to commonly used operations.

The table below describes each of the quick access icons on the web user interface toolbar.



The icons on the toolbar help you access different pages dedicated to set and configure Talend Data Quality Portal.

The table below describes the menus in the administrator page of Talend Data Quality Portal.

Menu	Description
User menu <b>5</b>	This menu enables you to browse documents and manage their execution. For more information about the <b>User menu</b> , see <i>Toolbar</i> .

Menu	Description
Resources ( 🍫 )	This menu enables you to manage internal and external engines, data sources and data sets.
Profiling ( )	The <b>Profile Management</b> submenu enables you to manage roles and users of <i>Talend Data Quality Portal</i> .
	The <b>Behavioural model</b> submenu enables you to manage parameter values (LoV) and analytical drivers.
	The <b>Menu Configuration</b> submenu enables you to manage menu display in the end-user page and user permission on these menus, user permission on certain functionalities, the import/export of document templates. Through the <b>Manage Configuration</b> option of this menu, it is possible to do any kind of configuration on different aspects in Talend Data Quality Portal.
Analytical model (	This menu enables you to manage document details and user or group permission on documents.
	The <b>Kpi Model</b> submenu enables you to manage key performance indicators (KPI). Through the <b>Grants Definition</b> option of this menu, it is possible to give permission on different models in tTalend Data Quality Portal.

#### 2.1.3. Managing resources

Before being able to use *Talend Data Quality Portal* as a monitoring and reporting tool of data quality metrics, you must define your resources, namely: document management engines, data sources and parameters values.

#### 2.1.3.1. Defining external and internal engines

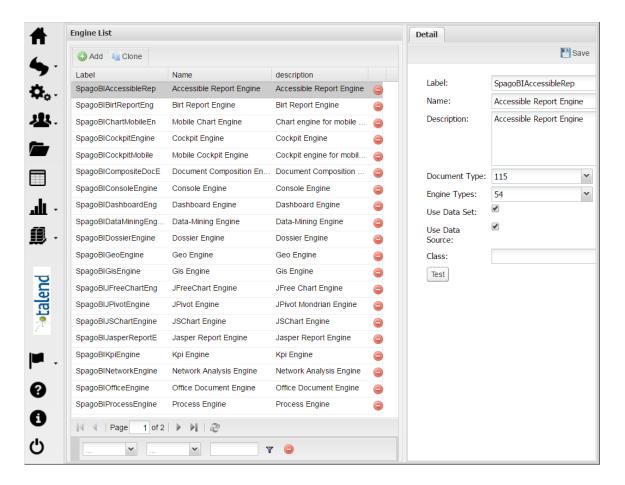
From *Talend Data Quality Portal* you can define an internal or an external engine to be used for the management of documents. All engines are listed in the Engine management page in the Portal.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

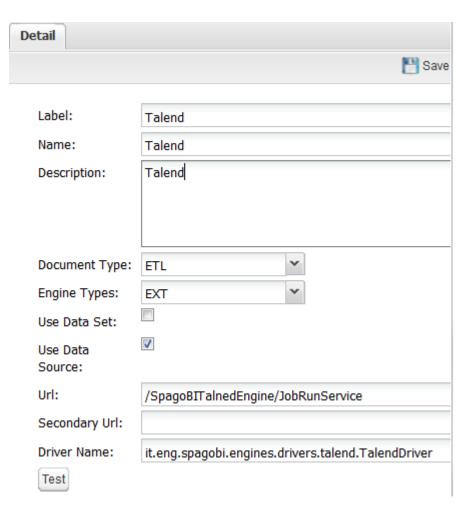
To define an internal or an external engine, do the following:

1. On the toolbar of the administrator page, click and select **Engines management** from the list.

A new page opens to list all the engines defined in the portal.



2. Click the **Add** icon in the upper left corner to clear the **Details** page.



3. Fill in the details of the new engine you want to define.

The engine details differ whether you're defining an internal or an external engine. For external engines, a URL and a driver name are necessary, while for internal engines you need only to specify the class.

The tables below give you some examples about external and internal engines:

External engine	Driver	URL
BirtEngine	it.eng.spagobi.engines.	/SpagoBIBirtReportEngine/BirtReportServlet
	drivers.birt.BirtReportDriver	
JPivotEngine	it.eng.spagobi.engines.	/SpagoBIJPivotEngine/JPivotServlet.
	drivers.jpivot.JPivotDriver	
JasperReportEngine	it.eng.spagobi.engines.drivers.	/SpagoBIJasperReportEngine/
	jasperreport.JasperReportDriver	JasperReportServlet
QbeEngine	it.eng.spagobi.engines.	/SpagoBIQbeEngine/servlet/AdapterHTTP
	drivers.qbe.QbeDriver	
TalendEngine	it.eng.spagobi.engines.	/SpagoBITalendEngine/JobRunService
	drivers.talend.TalendDriver	

Internal engine name	Class	
ChartEngine	it.eng.spagobi.engines.chart.	
	SpagoBIChartInternalEngine	

Internal engine name	Class	
DashboardInternalEngine	.eng.spagobi.engines.dashboard.	
	SpagoBIDashboardInternalEngine	
KpiEngine	it.eng.spagobi.engines.kpi.	
	SpagoBIKpiInternalEngine	

4. Click the icon to save the new engine and add it to the engine list.

#### 2.1.3.2. Defining data sources and parameter values

The prerequisites before being able to use *Talend Data Quality Portal* as a monitoring and reporting tool of data quality metrics is to define the data sources to be used.

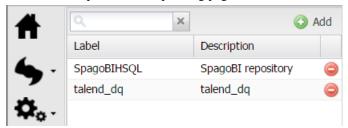
It is also essential to define the parameter values, List of Values and data sets, to be used in order to read data from these sources.

The section below explains how to define a data source. For more information about how to define the parameter values used to read data, see *Parameter values*.

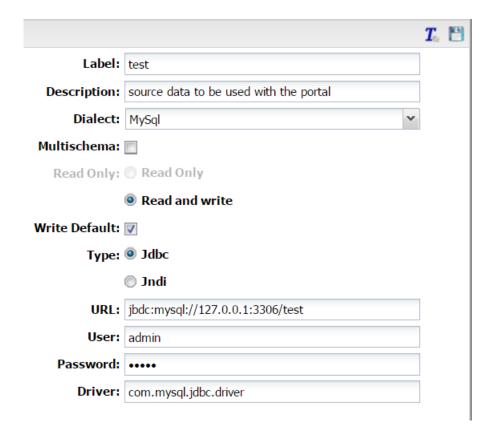
Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To define the data source that holds the technical data to be used in document templates, do the following:

- 1. On the toolbar of the administrator page, click to display a list.
- 2. From the list, select **Data source** to open the corresponding page.



3. Click the **Add** icon in the upper right corner to open the **Detail Data Source** page.



4. Fill in the details of the connection according to your environment.

If you define your data source as a JNDI resource, you define it only one time but you can use it with every application that connects to it. If you define your data source as a jdbc resource, you can connect to other data sources on the fly.

- 5. Click the icon to test the connection before saving it.
- 6. Click the icon to save the data source details.

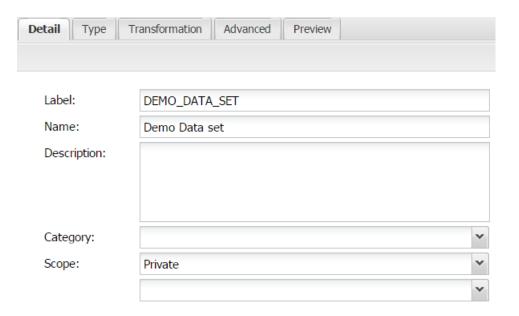
#### 2.1.3.3. Creating a data set as an administrator

In *Talend Data Quality Portal*, you can create different types of data sets such as query data sets, script data sets, file data sets or QBE data sets. Using data sets, you can read data from different data sources and create Cockpit documents.

For further information on how to create Cockpit documents, see *How to create a Cockpit document*.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

- 1. On the toolbar of the administrator page, click and select **Data set** to open the corresponding page.
- 2. Click the **Add** icon at the top of the **DataSets List**.
- 3. In the **Detail** tab, fill in the details of the data set.



- 4. In the **Type** tab, select the type of the data set from the **DataSet Type** list.
- 5. Set the data set properties according to the type of the data set being created.
- 6. Click the icon to save the data set.

The data set is saved and appears in the **DataSet List**.



For more information, download the SpagoBI quick start guide from SpagoBI Documentation at http://forge.objectweb.org/project/showfiles.php?group\_id=204 or check https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/.

#### 2.2. User page

Through the user page of *Talend Data Quality Portal*, business users can access a wide range of analytical tools. Through these analytical tools, users can explore and monitor the result of the reports generated on the analyses created from *Talend Studio*.

#### 2.2.1. Logging in

The Talend Installation Guide will guide you through the steps of installing the portal.

To start Talend Data Quality Portal web application, do the following:

1. Type the Portal address into your web browser as the following: http://[server address]:8580/tdqportal/ and press **Enter** on your keyboard.

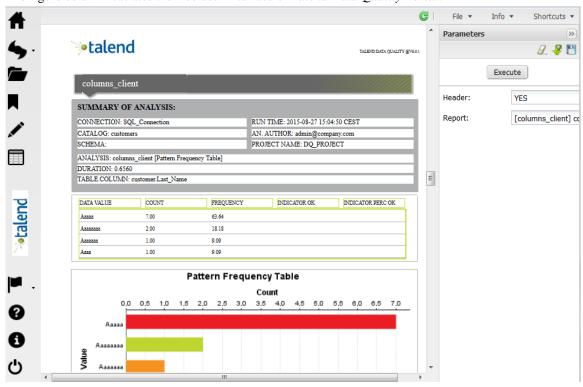


If Talend Data Quality Portal is installed on a port other than the by-default one (port 8580), make sure to include the correct port name in the address.

2. From the home page of *Talend Data Quality Portal*, log in using tdq\_user as username and tdq as password to access the web user interface.



The figure below illustrates the web user interface of Talend Data Quality Portal.



The web user interface in the portal enables you to use many categories of analytical tools including: **Reports**, **Analytical Processing** (OLAP) and **Custom Reports** processes and Key performance Indicators (KPI).

For more information about Talend Data Quality Portal analytical tools, see Analytical tools.

You can generate reports on the results of profiling analyses according to your role and with the modalities previously defined in the parameter configuration by the administrator.

For more information about role assignments and access rights, see *Roles and users* and *Roles and users*.

#### 2.2.2. Describing the page

*Talend Data Quality Portal* provides access to a web user interface through which you can access a wide range of analytical tools including **Reports**, **Analytical Processing** and **Custom Reports**. These analytical tools use the statistical information stored in the database and resulted from the reports generated in *Talend Studio* on different analyses.

For more information about Talend Data Quality Portal analytical tools, see Analytical tools.

#### 2.2.2.1. Toolbar

In the user page, the toolbar helps you access different analytical tools which combine views of indicator results with data quality reports.

The table below describes available icons in Talend Data Quality Portal.

User Menu ( )	Description
Reports	enables you to access all types of reports generated on the analyses done in <i>Talend Studio</i> and stored in the Portal database (datamart).
	Access to advanced reports is only available from <i>Talend Data Quality Portal</i> . For more information, see <i>Reports</i> .
<b>Custom Reports</b>	enables you to access a page where you can build and save your customized queries you use to interrogate the datamart that stores the analysis results. For more information, see <i>Custom Reports</i> .
Links	provides you with direct links to Talend MDM Web User Interface, Talend Drools or Talend Administration Center. For further information, see Accessing other Talend web applications from the Portal.

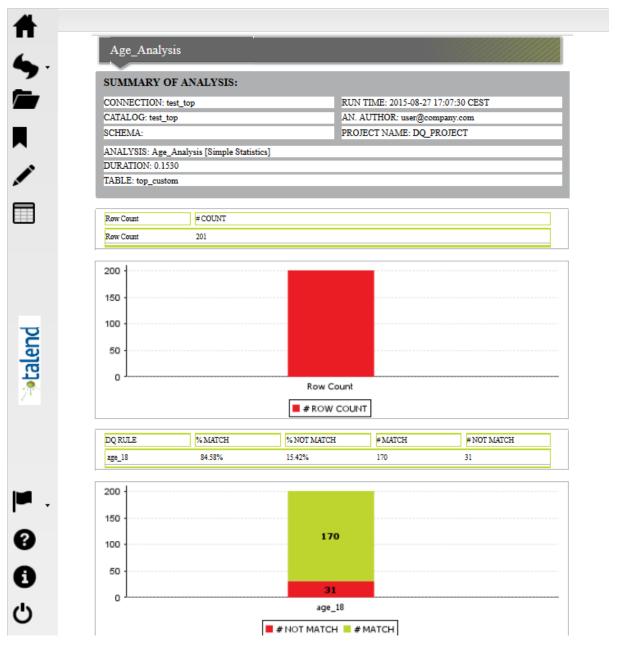
The table below describes the icons that provide you with quick access to commonly used operations.

Icon	Description
	translates the web user interface into any of the available languages.
0	opens the online help.
•	opens the Informations on SpagoBI window.
ტ	closes the open instance of the web user interface and goes back to <i>Talend Data Quality Portal</i> login window.

#### **2.2.2.2.** Workspace

By clicking a menu icon in the web user interface, you can display the relative page and start deploying reports accordingly. The reports you generate from the Portal reuse the stored analysis results but they are not an exact copy of the reports generated in the Studio. While a report in the Studio can combine the results of different types of analyses in the same document, reports in the Portal are generated individually from different pages according to each analysis type and according to whether the report is a basic or an evolution report.

The figure below illustrates an example of a report in the web user interface of *Talend Data Quality Portal*.



**(** 

A dedicated Job can be scheduled in *Talend Administration Center* to automatically launch analyses on a regular (or event-triggered) basis to reflect changes in the monitored databases. These new analysis results can then be accessed by simply launching the relevant reports directly from *Talend Data Quality Portal*.

# 2.2.3. Accessing other Talend web applications from the Portal

From the user page of *Talend Data Quality Portal*, you can have direct access to *Talend Drools*, *Talend MDM Web User Interface* or *Talend Administration Center*.

Prerequisites: You have accessed Talend Data Quality Portal as a user.

To open other **Talend** web applications from the Portal, do the following:

1. At the root of the Tomcat installation directory, edit the host and port information (localhost:8080 by default) in the following files according to your installation:

- tdqp/apache-tomcat/resources/static\_menu/talendmdm.html
- tdqp/apache-tomcat/resources/static\_menu/talend\_drools.html
- tdqp/apache-tomcat/resources/static\_menu/talend\_tac.html
- 2. From the web user interface, click , point to **Links** and select an option as the following:

Option	То
Talend MDM	open Talend MDM Web User Interface.
Talend Drools	open the Drools Business Rules Management System deployed on <i>Talend Administration Center</i> .
Talend Administration Center	open Talend Administration Center web application.

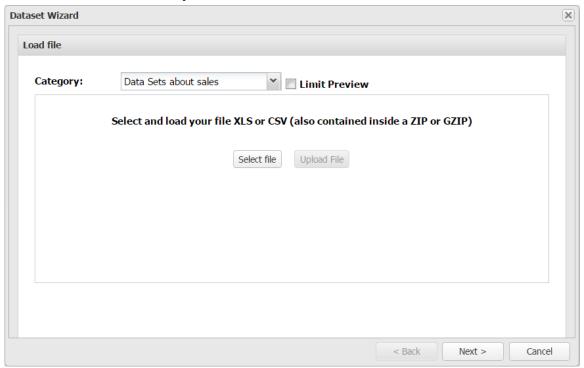
#### 2.2.4. Creating a data set as a user

From the user page of *Talend Data Quality Portal*, you can load XLS or CSV files to create data sets. Then, you can create Cockpit documents using these data sets.

For further information on how to create Cockpit documents, see *How to create a Cockpit document*.

Prerequisite(s): You have accessed Talend Data Quality Portal as a user.

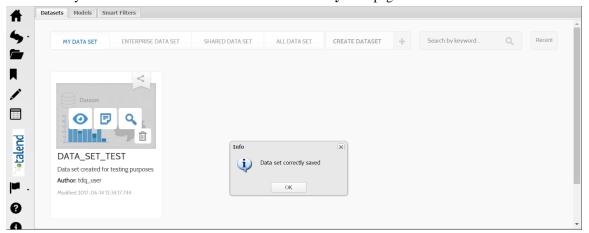
- 1. On the toolbar of the user page, click to open the **My data** page.
- 2. Click **CREATE DATASET** to open the **Dataset Wizard**.



- 3. Select the category of the data set from the **Category** list.
- 4. Click **Select file** and select the file from which you want to retrieve the data.
- 5. Click **Upload file**.

- 6. Specify the delimiter character used to separate fields, the quote character used to identify strings and the encoding from the corresponding lists, and click **Next**.
- 7. Define the metadata for all the fields of the dataset, and click **Next** to preview and validate the data set.
- 8. If the validation does not find any errors, click **Next**.
- 9. Specify a name and a description for the data set created, and click **Confirm** to save it.

The data set you created is listed in the **Datasets** tab of the **My data** page:





# Chapter 3. Analytical tools

This chapter describes the analytical tools available in *Talend Data Quality Portal*. These analytical tools allow end-users to launch reports that use the information resulted from the reports generated in the **Profiling** perspective of *Talend Studio*.

This chapter describes in details how end-users can use custom reports to build queries to select fields and records from the data quality datamart.

### 3.1. Using available analytical tools

Every menu in the user page allows the user to access and use different report categories, sometimes with the possibility of personalizing analyses as it is the case with the **Analytical Processing** and the **Custom Reports** menus.

It is also possible to access views of the key performance indicators (KPI) in Talend Studio database.

#### 3.2. Reports

Based on the analyses executed in the studio, *Talend Data Quality Portal* offers direct access to all analysis results stored in the datamart. From the user page, you can generate different types of reports on these results. The date and time information in the reports you generate from *Talend Data Quality Portal* is displayed in the server zone of the Portal.

Additional and more advanced reports can also be launched only from *Talend Data Quality Portal* and not from the Studio.

For further information about standard reports, see Launching basic or evolution reports.

For further information about advanced reports, see *Launching advanced reports*.

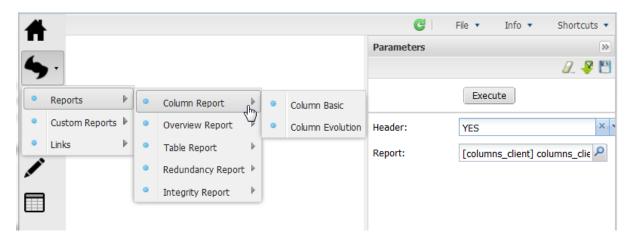
#### 3.2.1. Launching basic or evolution reports

Basic and evolution reports are report documents generated on the results of the different analysis types created in the **Profiling** perspective of *Talend Studio*. These reports include column reports, overview reports, table reports or redundancy reports.

Basic reports provide the statistics collected by given analyses. Evolution reports provides information showing the evolution through time of the statistics collected by the indicators used on given analyses. Evolution reports allow you to compare current and historical statistics to determine the improvement or degradation of the analyzed data.

From the **Reports** menu in the web user interface, you can:

• Use the item - subitem combination to access the data quality information and statistics generated by the reports executed in the Studio and which results are stored in the data quality datamart.



- Launch basic or evolution reports on all analysis types directly from the web user interface.
- Insert a header logo in any of the launched reports in order to customize these reports to comply with the corporate graphical guidelines.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

The reports you generate from the Portal reuse the statistical information stored in the database and resulted from the reports generated in the **Profiling** perspective of *Talend Studio* but they are not an exact copy of these reports. While a report in the Studio can combine the results of different types of analyses in the same document, reports in the Portal are generated individually from different pages according to each analysis type and according to whether the report is a basic report or an evolution one.

#### **Prerequisite(s):**

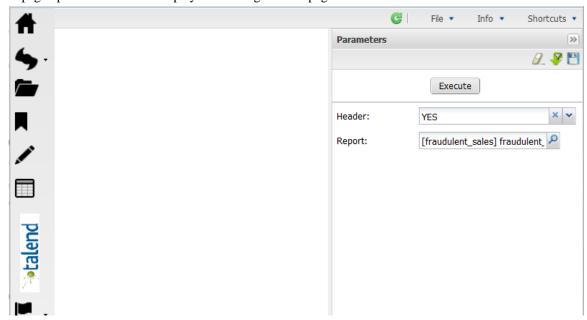
- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated on an analysis in the **Profiling** perspective of *Talend Studio*.

The following procedure describes an example on how to generate a report in the Portal on a column analysis that analyzes the *email*, *fullname*, and *total\_sales* columns. Simple statistics indicators are used to analyze the first two columns; advanced statistics, pattern frequency statistics and soundex frequency statistics are used to analyze the *email* column and finally the **Benford Law Frequency** indicator is used to detect fraudulent data in the *total\_sales* column.

To launch a standard report from Talend Data Quality Portal, do the following:

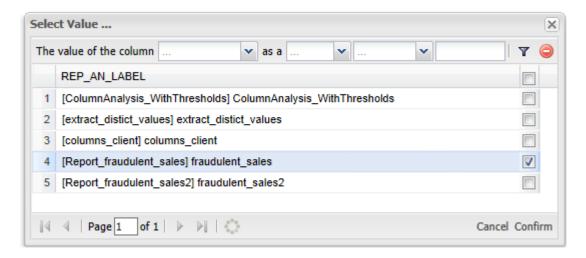
- 1. Log in to *Talend Data Quality Portal* using the user authentication information.
- 2. Click the icon, point to **Reports** > **Column Report** and click **Column Basic**.

A page opens and a form is displayed to the right of the page.



- 3. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.
- 4. Click the **Report** explore icon.

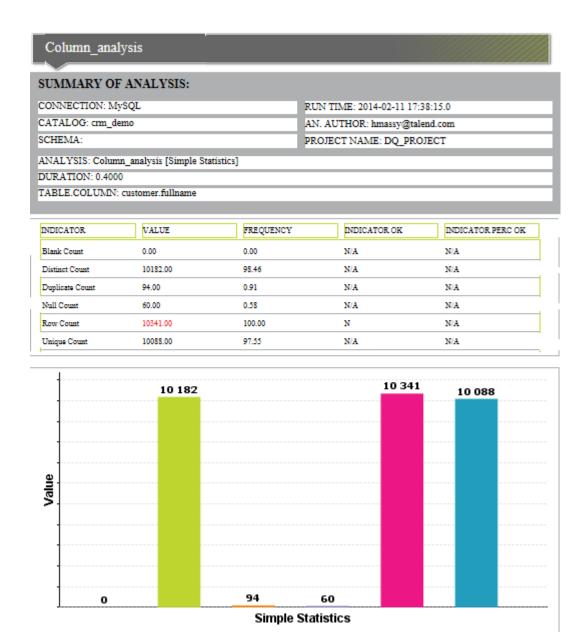
A dialog box opens to list all the reports generated on column analyses in the **Profiling** perspective of *Talend Studio*. This list shows first the name of the report followed by the name of the column analysis.



- 5. Select the column analysis on which you want to generate a report and then click **Confirm** at the bottom right corner of the dialog box.
- 6. Click Execute.

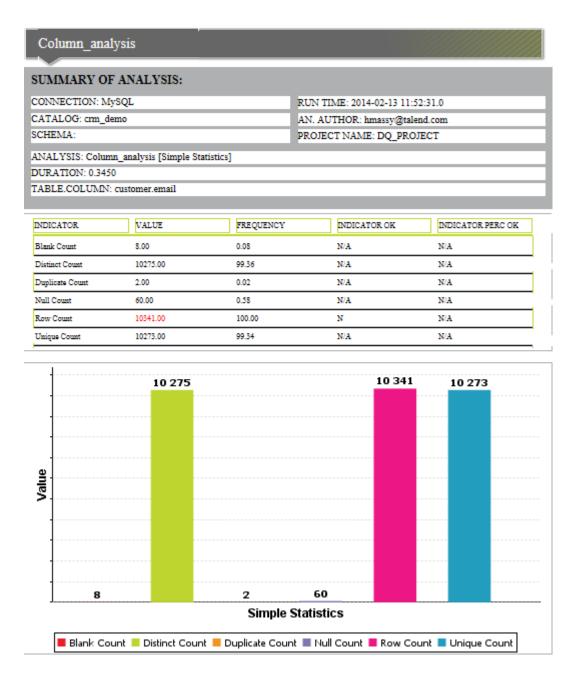
A loading indicator is displayed and then the report opens in the page. Aggregated data quality information and statistics show in the form of charts and matrices.

The simple statistics results are represented as the following for the *fullname* column:



■ Blank Count ■ Distinct Count ■ Duplicate Count ■ Null Count ■ Row Count ■ Unique Count

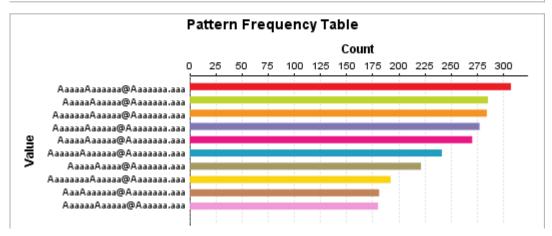
And as the following for the  $\it email$  column:



The advanced statistics results are represented as the following for the *email* column:

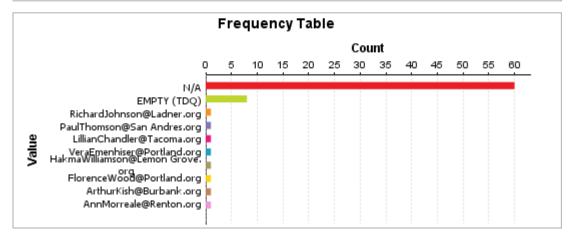
SUMMARY OF ANALYSIS:	
CONNECTION: MySQL	RUN TIME: 2014-02-13 11:52:31.0
CATALOG: crm_demo	AN. AUTHOR: hmassy@talend.com
SCHEMA:	PROJECT NAME: DQ_PROJECT
ANALYSIS: Column_analysis [Pattern Frequency Tab	ole]
DURATION: 0.3450	
TABLE.COLUMN: customer.email	

DATA VALUE	COUNT	FREQUENCY	INDICATOR OK	INDICATOR PERC OK
Азгаг Азгага (ДА гагага гага	307.00	2.97		
Assas Assas a@Assas ass	285.00	2.76		
АагагалАагага.@Аагагага.	284.00	2.75		
Азгага Агага ДАгагага гаг	277.00	2.68		
Авгаг Авгага @Авгагага.	270.00	2.61		
AasaaaAaaaaaa@Aaaaaaaaaaaa	241.00	2.33		
Aasaa Aasaa @Aasaasa aas	221.00	2.14		
A2222222A2222@A222222.222	192.00	1.86		
AazAazazaz@Azazazaz.azz	181.00	1.75		
A22222A2222@A22222.222	180.00	1.74		

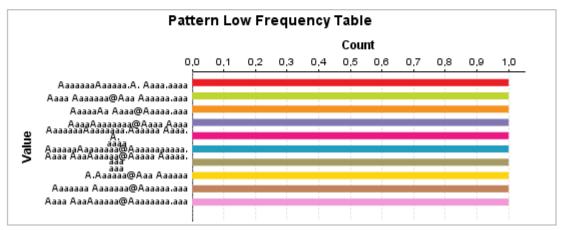


SUMMARY OF ANALYSIS:	
CONNECTION: MySQL	RUN TIME: 2014-02-13 12:01:29.0
CATALOG: crm_demo	AN. AUTHOR: hmassy@talend.com
SCHEMA:	PROJECT NAME: DQ_PROJECT
ANALYSIS: Column_analysis [Frequency Table]	
DURATION: 0.3940	
TABLE.COLUMN: customer.email	

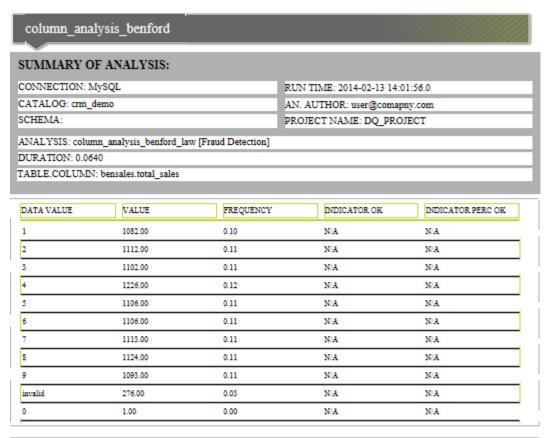
DATA VALUE	COUNT	FREQUENCY	INDICATOR OK	INDICATOR PERC OK
N/A	60.00	0.58		
EMPTY (TDQ)	8.00	0.08		
RichardJohnson@Ladner.org	1.00	0.01		
PaulThomson@San Andres.org	1.00	0.01		
LillianChandler@Tacoma.org	1.00	0.01		
VeraEmenhiser@Portland.org	1.00	0.01		
HakmaWilliamson@Lemon Grove.org	1.00	0.01		
FlorenceWood@Portland.org	1.00	0.01		
ArthurKish@Burbank.org	1.00	0.01		
AnnMorreale@Renton.org	1.00	0.01		

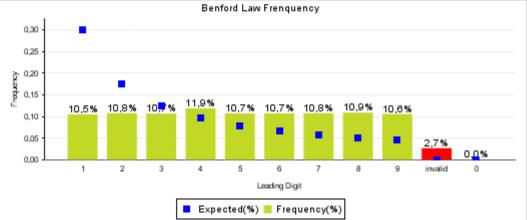


DATA VALUE	COUNT	FREQUENCY	INDICATOR OK	INDICATOR PERC OK
AasasaaAasasa.A. Aasasasas	1.00	0.01		
Aasa Aasaasa@Aas Aasaas.aas	1.00	0.01		
AaaaaAa Aaaa@Aaaaa aaa	1.00	0.01		
AasaAssassa@Assa Assa	1.00	0.01		
A22222A2A222222.A22222 A222.2222	1.00	0.01		
A. Aasaaa Aasaaaaa (() Aasaaaaaaaa aa	1.00	0.01		
Aasa AasAassas@Aassa Aassa.aas	1.00	0.01		
A. Azzzzz @ Azz Azzzzz	1.00	0.01		
A222222 A222222@A22222.222	1.00	0.01		
Aasa AaaAaasaa@Aasaasas asa	1.00	0.01		



The Benford's law frequency statistics are represented as the following for the *total\_sales* column:





The run date and time information in the basic and evolution reports is displayed in the server zone of the Portal.

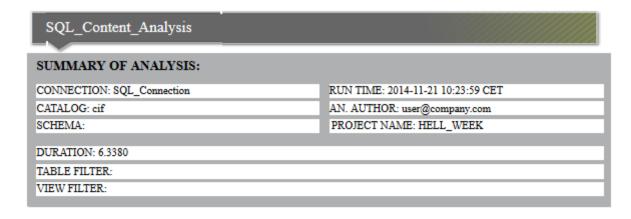
7. In the top right corner of the page, click to save the report parameters.

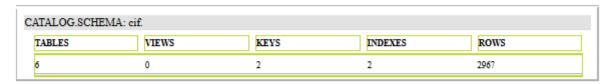


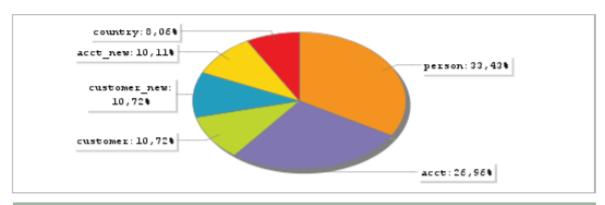
You can run a saved report without redefining its parameters, for further information, see *Accessing the list of defined reports*.

Proceed similarly to generate reports on any other analysis type including **Overview analysis**, **Table analysis** and **Redundancy analysis**.

Below is one example of the results you can get in the Portal by launching a basic **Overview Report**:







ABLE/VIEW NAME	ROWS	KEYS	INDEXES	TABLE(T)/VIEW(V)
person	992	0	0	T
acct	800	0	0	T
customer	318	0	0	T
customer_new	318	1	1	T
acct_new	300	1	1	T
country	239	0	0	T

For detailed information about the analysis types used to profile data, check the data profiling part in the *Talend Studio User Guide*.

#### 3.2.2. Launching advanced reports

Additional and more advanced reports can be launched only from *Talend Data Quality Portal* and not from *Talend Studio*. These reports include integrity reports based on the list of orphan tables and lists of tables without primary or foreign keys.

The run date and time information in the advanced reports is displayed in server zone of the Portal.

## 3.2.2.1. Potential Primary Keys

These reports analyze the data in the datamart using the following simple statistics indicators: row count, distinct count, unique count and duplicate count. They check which columns could be used as Primary Keys.

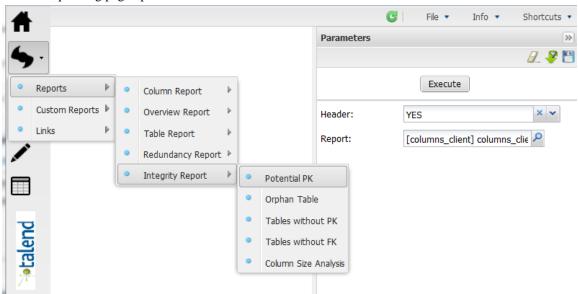
#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated in the **Profiling** perspective of *Talend Studio* on a column analysis that uses the simple statistics indicators.

To launch a report in order to locate the columns that can be used as Primary Keys, do the following:

1. From the user interface, click the icon, point to **Reports** > **Integrity reports** and then click **Potential PK**.

The corresponding page opens.



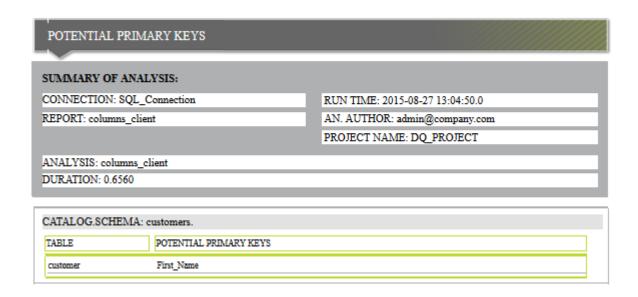
2. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

- 3. Click the **Report** explore icon to display a dialog box that lists some of the reports generated in the **Profiling** perspective of *Talend Studio*.
- 4. Select the report you want to analyze in order to check for any columns that can be used as Primary Keys.
- Select the report you want to generate and then click Confirm at the bottom right corner of the dialog box.
   The name of the selected report appears in the Report field.
- 6. Click in the top right corner of the page.

A loading indicator is displayed and then a POTENTIAL PRIMARY KEYS report is open in the page.





In this example, the *POTENTIAL PRIMARY KEYS* report is launched on the *column\_client* report already generated in the **Profiling** perspective of *Talend Studio*. The results show that one column in the *client* table can be used as Primary Key.

7. In the top right corner of the page, click to save the report parameters.

You can run a saved report without redefining its parameters, for further information, see *Accessing the list* of defined reports.

## 3.2.2.2. Orphan tables

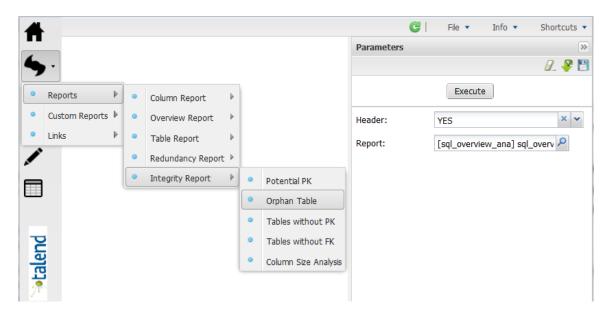
These reports analyze the data in the datamart to check for tables that exist in isolation - not referred to by other tables. They use overview analyses (connection and catalog analyses) to compute the results.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated on a connection or catalog analysis in the **Profiling** perspective of *Talend Studio*.

To launch a report in order to locate isolated tables, do the following:

1. From the web user interface, click the icon, point to **Reports** > **Integrity reports** and then click **Orphan Table**.



The corresponding page opens.

2. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

- 3. Click the **Report** explore icon to display a dialog box that lists some of the reports generated in the **Profiling** perspective of *Talend Studio*.
- 4. From the **Report** list, select the overview report you want to analyze in order to check for any isolated table that is not referred to by any other table.
- 5. Select the report you want to generate and then click **Confirm** at the bottom right corner of the dialog box.

The name of the selected report appears in the **Report** field.

6. Click **Execute** in the top of the **Parameters** panel.

A loading indicator is displayed and then a LIST OF ORPHAN report opens.

## talend\*

#### LIST OF ORPHAN SUMMARY OF ANALYSIS: CONNECTION: SQL Connection RUN TIME: 2014-02-13 16:49:07.0 CATALOG: AN. AUTHOR: hmassy@talend.com SCHEMA: PROJECT NAME: DQ PROJECT DURATION: 7.1910 TABLE FILTER: VIEW FILTER: CATALOG.SCHEMA: cif #TRIGGERS TABLE #ROWS 800 0 CATALOG.SCHEMA: customers #ROWS TABLE # TRIGGERS 0 aggregate\_customers CATALOG.SCHEMA: crm\_demo # TRIGGERS TABLE #ROWS bensales 1000000 0 CATALOG.SCHEMA: tbi TABLE #TRIGGERS #ROWS 1000000 0 bensales CATALOG.SCHEMA: convert # TRIGGERS TABLE #ROWS convert CATALOG.SCHEMA: cif # TRIGGERS TABLE #ROWS 239 0 country

In this example, the *LIST OF ORPHAN* report is launched on a database content analysis. The results show how many tables in each schema in the database are not referred to by other tables. For example, in the *cif* catalog, the *country* and *customer* tables are not referred to by other tables.

0

7. In the top right corner of the page, click to save the report parameters.

318

customer

You can run a saved report without redefining its parameters, for further information, see *Accessing the list of defined reports*.

### 3.2.2.3. Tables without Primary Keys

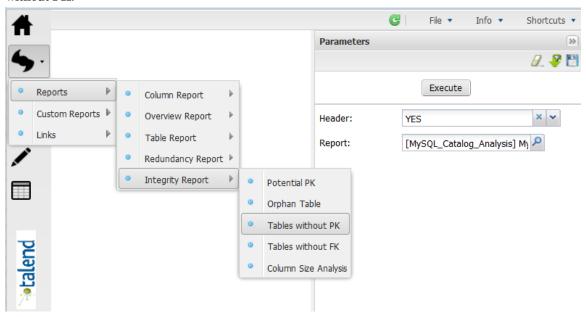
These reports analyze the data in the datamart to check for tables that do not have Primary Keys. They use the overview analyses (connection and catalog analyses) to compute the results.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated on a connection or catalog analysis in the **Profiling** perspective of *Talend Studio*.

To launch a report in order to locate the tables that do not have Primary Keys, do the following:

1. From the web user interface, click the icon, point to **Reports** > **Integrity reports**, and then click **Tables** without PK.



The corresponding page opens.

2. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

- 3. Click the **Report** explore icon to display a dialog box that lists some of the reports generated in the **Profiling** perspective of *Talend Studio*.
- 4. From the **Report** list, select the overview report you want to analyze in order to check for any tables that do not have Primary Keys.
- 5. Click **Confirm** at the bottom right corner of the dialog box.

The name of the selected report appears in the **Report** field.

6. Click **Execute** in the top of the **Parameters** panel.

A loading indicator is displayed and then a *TABLES WITHOUT PK* report opens.

## talend\*

#### TABLES WITHOUT PK

SUMMARY OF ANALYSIS:	
CONNECTION: MySQL	RUN TIME: 2014-02-13 16:41:20.0
CATALOG: employee	AN. AUTHOR: hmassy@talend.com
SCHEMA:	PROJECT NAME: DQ_PROJECT
DURATION: 7.3860	
TABLE FILTER:	
VIEW FILTER:	
VIEW FILTER.	

ANALYSIS: overview\_ana

ATALOG.SCHEMA: employee		
TABLE	# ROWS	# TRIGGERS
employee	6	0
petalsemployeeoutput	0	0
test	12	0

In this example, the *TABLES WITHOUT PK* report is launched on a database content analysis. The results show how many tables in each schema in the database do not have Primary keys. For example, in the *employee* catalog, the *employee*, *petalsemployeeoutput* and *test* tables do not have Primary Keys.

7. In the top right corner of the page, click to save the report parameters.

You can run a saved report without redefining its parameters, for further information, see *Accessing the list* of defined reports.

## 3.2.2.4. Tables without Foreign Keys

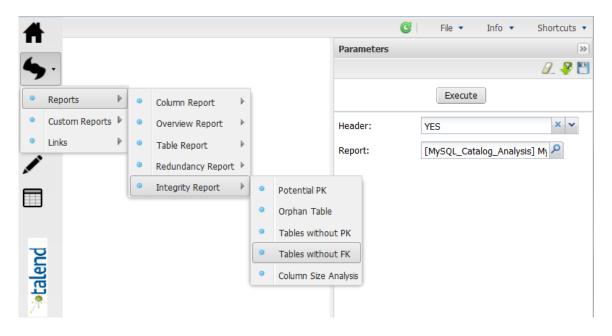
These reports analyze the data in the datamart to check for tables that do not have Foreign Keys. They use the overview analyses (connection and catalog analyses) to compute the results.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated on a connection or catalog analysis in the **Profiling** perspective of *Talend Studio*.

To launch a report in order to list the tables that do not have Foreign Keys, do the following:

From the web user interface, click the icon, point to **Reports** > **Integrity reports** and then click **Tables** without **FK**.



The corresponding page opens.

2. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

- 3. Click the **Report** explore icon to display a dialog box that lists some of the reports generated in the **Profiling** perspective of *Talend Studio*.
- 4. From the **Report** list, select the overview report you want to analyze in order to check for any tables that do not have Foreign Keys.
- 5. Click **Confirm** at the bottom right corner of the dialog box.

The name of the selected report appears in the **Report** field.

6. Click **Execute** in the top of the **Parameters** panel.

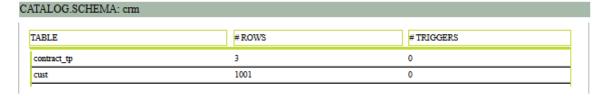
A loading indicator is displayed and then a *TABLES WITHOUT FK* report on the selected report opens in the page.



## TABLES WITHOUT FK

SUMMARY OF ANALYSIS:	
CONNECTION: MySQL	RUN TIME: 2014-02-13 16:41:20.0
CATALOG: crm	AN. AUTHOR: hmassy@talend.com
SCHEMA:	PROJECT NAME: DQ_PROJECT
DURATION: 7.3860	
TABLE FILTER:	
VIEW FILTER:	

ANALYSIS: overview\_ana



In this example, the *TABLES WITHOUT FK* report is launched on a database content analysis. The results show how many tables in each schema in the database do not have Foreign keys. For example, in the *crm* catalog, the *contact\_tp* and *cust* tables do not have Foreign Keys.

7. In the top right corner of the page, click to save the report parameters.

You can run a saved report without redefining its parameters, for further information, see *Accessing the list* of defined reports.

## 3.2.2.5. Column size analysis

This report analyzes the data in the datamart relative to a given database to check data storage requirements for specific columns. It highlights the columns which have the largest difference between the parametrized column size and the actual maximum size. This will help the administrator to tune the database server for better performance through making sure that the physical storage space is not wasted in any of the analyzed columns.



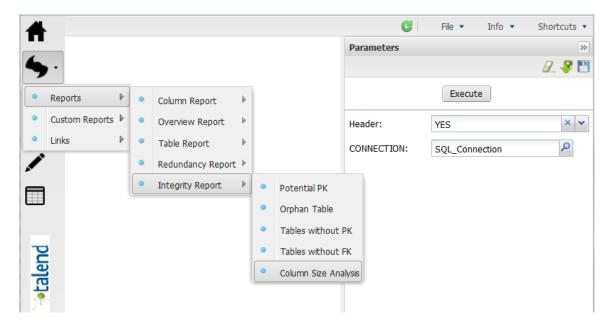
This report needs column analyses that use the text statistics, mainly Minimal Length, Maximal Length and Average Length. You can generate this type of report only from Talend Data Quality Portal, that is you can not generate it from the **Profiling** perspective of Talend Studio.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been generated on a column analysis in the **Profiling** perspective of *Talend Studio*. The column analysis must use the text statistics indicators, mainly Minimal Length, Maximal Length and Average Length.

To launch a report in order to analyze column size in a specific database, do the following:

1. From the user interface, click the icon, point to **Reports** > **Integrity reports** and then click **Column size analysis**.



The corresponding page opens.

2. Click in the **Header** field and select **YES** if you want to insert a logo in the report to launch.

The default logo file is a **Talend** logo, but you can decide to use a logo of your choice. For further information, see *Customizing logos in reports*.

- 3. Click the **CONNECTION** explore icon to display a dialog box that lists the database connections created in the **Profiling** perspective of *Talend Studio*.
- 4. From the **CONNECTION** list, select the database connection used for the column analyses carried out in the **Profiling** perspective of *Talend Studio*.
- 5. Click **Confirm** at the bottom right corner of the dialog box.

The name of the selected connection is displayed in the **CONNECTION** field.

6. Click **Execute** in the top of the **Parameters** panel.

A loading indicator is displayed and then a report on all column analyses, if more than one exists, that use the selected database connection opens in the page.



#### columns client SUMMARY OF ANALYSIS: CONNECTION: SQL\_Connection RUN TIME: 2014-02-13 18:34:12.0 AN. AUTHOR: admin@company.com PROJECT NAME: DQ PROJECT DURATION: 0.4000 ANALYSIS: columns\_client CATALOG.SCHEMA: customers TABLE NAME: customer COLUMN DISTANCE COLUMN SIZE MIN LENGTH AVG LENGTH MAX LENGTH 45 0 0 38.0 First\_Name 45 0 8 Last\_Name TABLE NAME: staging columns COLUMN DISTANCE COLUMN SIZE MIN LENGTH AVG LENGTH MAX LENGTH First\_Name 248.0 255 0 0 7 id\_State TABLE NAME: staging\_rows COLUMN DISTANCE COLUMN SIZE MIN LENGTH AVG LENGTH MAX LENGTH 0 First\_Name 248.0 255 0 7 id\_State 248.0 255 0 0

In this example, we have three reports that have been initially generated on three column analyses in the **Profiling** perspective of *Talend Studio*. This report which is generated from *Talend Data Quality Portal* on the selected database connection gives information about all the analyzed columns in the three different analyses as the following:

Column label	Description
Column	names of the analyzed columns.
Distance	results of the subtraction of the Max Length from the column size. This will give information about the actual storage space used in the column.
Column size	data length defined for the column in the database.
Min Length	computes the minimal length of the text in the column.
Average Length	computes the average length of the text in the column.
Max Length	computes the maximum length of the text in the column.

The results shown in the report help the administrator to reduce the physical storage requirements (column size) for certain columns and thus have some space savings in these columns. This column storage space tuning will result in reduced physical storage in the table and database size.

7. In the top right corner of the page, click to save the report parameters.

You can run a saved report without redefining its parameters, for further information, see *Accessing the list of defined reports*.

## 3.2.3. Accessing the list of defined reports

From *Talend Data Quality Portal*, you can save the parameters of any of the reports in the **Report** list. This means that any time you want to launch the report, you do not need to reset its parameters but to launch it directly from the **Saved parameters** view.

#### **Prerequisites:**

- You have accessed Talend Data Quality Portal as a user.
- You have defined and saved at least one basic or advanced report from the Portal. For further information, see *Launching basic or evolution reports* and *Launching advanced reports* respectively.

To access the list of saved reports, do the following:

- 1. From the web user interface, click the **b** icon, point to **Reports** and select any of the report types.
- 2. In the **Parameters** panel of the **Reports** page, click .

A dialog box opens to list all saved reports.



#### 1. Either:

- click to display the report parameters and do any modifications/verifications.
- click to display the report parameters and execute it.
- select the check box corresponding to the query you want to delete and then click 

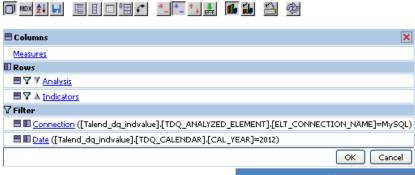
  to delete it.
- 2. If required, select the check box corresponding to the report you want to delete and then click to delete it.

# 3.3. Analytical Processing

*Talend Data Quality Portal* provides an access to Online Analytical Processing (OLAP) on the data resulted from the analyses carried on in the **Profiling** perspective of *Talend Studio*. In this page, you can easily and selectively extract and view data based on multi-dimensional analytical queries and save the most interesting view.

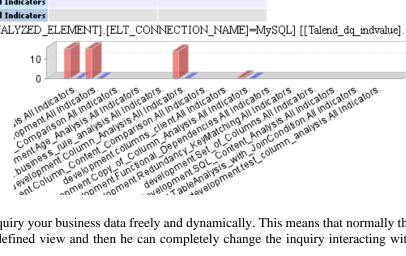
The Analytical Processing page in the web user interface gives an access to a document with time and indicator dimensions and their corresponding measures (values of threshold indicators). The view can also be displayed in the form of a bar chart.

The below figure illustrates an example of an OLAP document:



		Measures	
Analysis	Indicators		<ul> <li>IND Yalue</li> <li>I_Threshold percentage</li> </ul>
-All Analysis	<b>∔All Indicators</b>	15	0
-development	<b>♣All Indicators</b>	15	0
Account_Backup_Comparison	+All Indicators		
Age_Analysis	<b>♣All Indicators</b>		
business_rule_analysis	+All Indicators		
Column_Analysis	<b>♣All Indicators</b>	14	0
Column_Content_Comparison	+All Indicators		
columns_client	<b>♦All Indicators</b>		
Copy_of_Column_Analysis	<b>∔All Indicators</b>	i	0
Functional_Dependencies	<b></b> ♣All Indicators		
Redundancy_KeyMatching	<b>∔All Indicators</b>		
Set_of_Columns	<b></b> ♣All Indicators		
SQL_Content_Analysis	<b>∔All Indicators</b>		
TableAnalysis_with_JoinCondition	<b></b> ♣All Indicators		
test_column_analysis	+All Indicators		

Slicer: [[Talend\_dq\_indvalue].[TDQ\_ANALYZED\_ELEMENT].[ELT\_CONNECTION\_NAME]=MySQL] [[Talend\_dq\_indvalue]



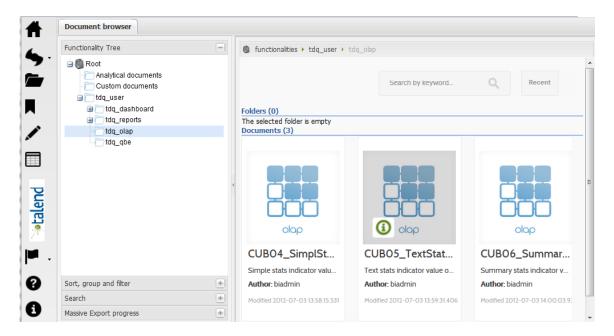
An OLAP document is a way to inquiry your business data freely and dynamically. This means that normally the user starts his analysis from a predefined view and then he can completely change the inquiry interacting with the platform.

#### **Prerequisites**

- You have accessed Talend Data Quality Portal as a user.
- Some reports have been generated in the **Profiling** perspective of *Talend Studio*.

To change the inquiry that interacts with the platform, do the following:

On the toolbar, click the icon, expand **tdq\_user** and select **tdq\_olap**.



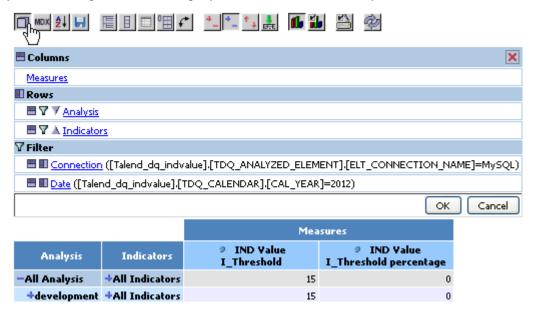
A page opens with documents on Simple statistics, Summary statistics and Text statistics.

2. Click one of the documents depending on what type of data you want to extract.

The **Analytical Processing** page opens.

3. From the toolbar of the page, click the OLAP navigator icon to open a matrix table.

Here you can set the parameters of the query and decide what data to analyze.



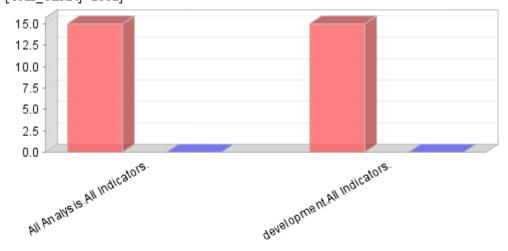
4. From this matrix table, click:

Link	То
Measures	define the thresholds you want to use in your query.
Analysis	define the analyses to integrate in your query.
Indicators	define the indicators you want to use in your query.
Connection	define the connections you want to use in your query.
Date	define the dates you want to use in your query.

5. Click the icon on the toolbar to display the extracted data in the form of a bar chart.

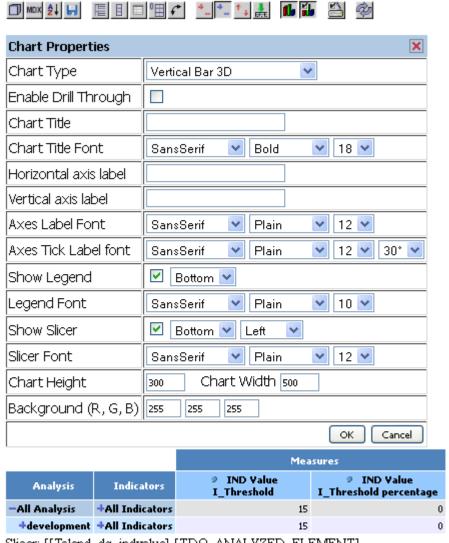


Slicer: [[Talend\_dq\_indvalue].[TDQ\_ANALYZED\_ELEMENT].
[ELT\_CONNECTION\_NAME]=MySQL] [[Talend\_dq\_indvalue].[TDQ\_CALENDAR].
[CAL\_YEAR]=2012]



Slicer: [Talend\_dq\_indvalue].[TDQ\_ANALYZED\_ELEMENT].[ELT\_CONNECTION\_NAME] = MySQL, [Talend\_dq\_indvalue].[TDQ\_CALENDAR].[CAL\_YEAR] = 2012 IND Value I\_Threshold. IND Value I\_Threshold percentage.

6. If required, click the icon on the toolbar to open a view where you can configure the chart display.



Slicer: [[Talend\_dq\_indvalue].[TDQ\_ANALYZED\_ELEMENT].
[ELT\_CONNECTION\_NAME]=MySQL] [[Talend\_dq\_indvalue].[TDQ\_CALENDAR].

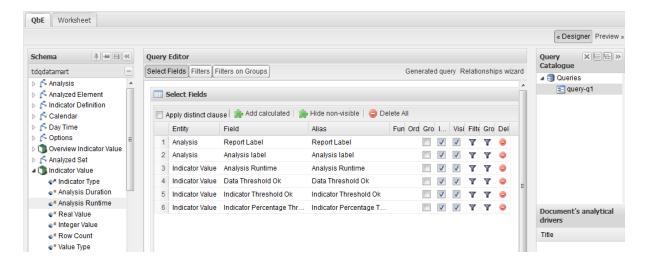
[CAL YEAR]=2012]

# 3.4. Custom Reports

Creating custom reports is one of *Talend Data Quality Portal* tools realized in order to ease the creation of simple queries in visual mode. You can build customized queries using the **Custom Reports** page to interrogate the datamart that stores the analysis results.

## 3.4.1. Describing the Custom Reports page

You can use the **Custom Reports** page in the *Talend Data Quality Portal* to build and save your own interrogations.

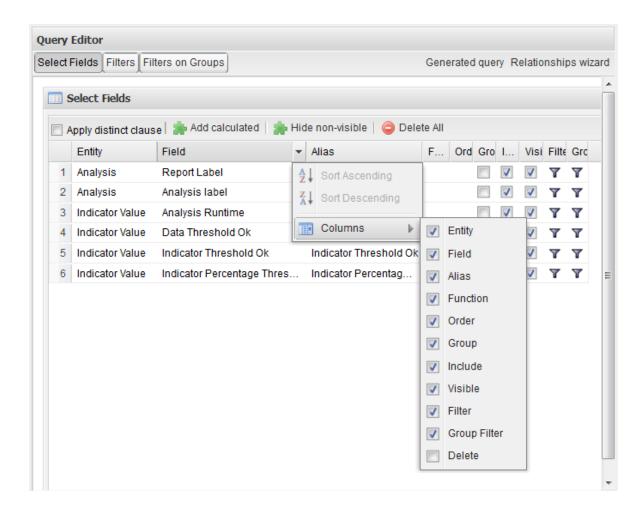


#### From this page, you can:

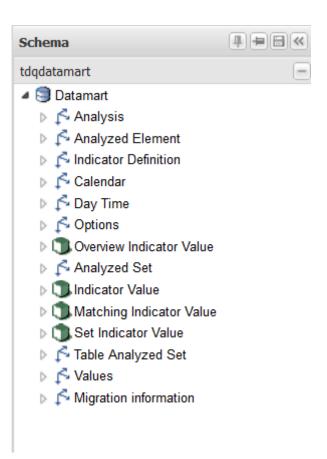
• Access the **Talend** report datamart in the **Schema** panel.

The table list in the datamart differs according to the database used in the *datamart.jar* file. For further information about how to configure a datamart other than **Talend** datamart in the web server, see *Connecting to another datamart from the QBE page*.

- Create new queries by a drag&drop operation of the elements from the **Schema** panel to the **Query Editor**, or by a simple click on the element itself. For further information, see *Building a query*.
- Add one or several worksheets to the interrogations you create in the QBE page through the **Worsksheet** > **Designer** tab. In these worksheets, you can use different types of charts or tables to represent the query results. For further information on worksheets, see *Creating a worksheet for the QBE results*, and the SpagoBI quick start pdf at http://forge.objectweb.org/project/showfiles.php?group\_id=204.
- Access a list of all defined queries in the **Customized views** at the bottom of the page. For further information on how to access this view, see *Accessing the list of the defined queries*.
- Access the **Query Catalog** panel to the right of the **Query Editor**. From this panel, you can create in each parent query one or more sub-queries to form groups of queries in a hierarchical tree. For further information, see *Creating and saving a group of queries*.
- Delete all listed elements in the **Query Editor** by clicking the icon in the top right corner,
- Delete only one element in the list. To do this, click the icon next to the element you want to delete. These icons are not shown by default. To display them, put your pointer on a column name and click the drop-down arrows and then from the **Columns** list, select the **Delete** check box.



From the **QBE** page and in the **Schema** panel, you can have access to fact ( ) and dimensional ( ) tables.



Fact tables stores the statistics and results of different analyses carried on in the **Profiling** perspective of *Talend Studio* while dimensional tables store the metadata about analyses. Dimensional tables are also listed under the fact tables.

## 3.4.2. Building a query

This section guides you through the steps to create a report built upon a template generated by the QBE analytical tool

In this example, we want to identify, in a selected report, the analyses where indicator thresholds have been violated.

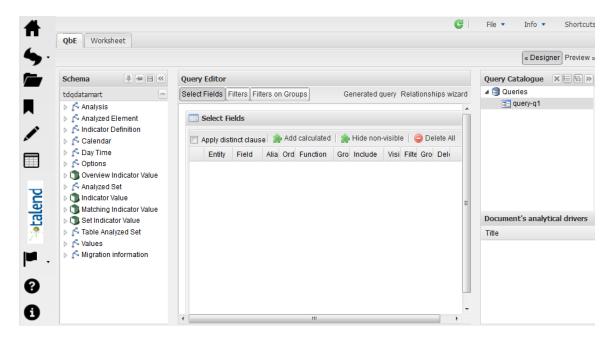
#### **Prerequisites**

- You have accessed Talend Data Quality Portal as a user.
- Some reports have been generated in the **Profiling** perspective of *Talend Studio*.

To build a query using the QBE method, do the following:

#### Selecting the elements to include in the query

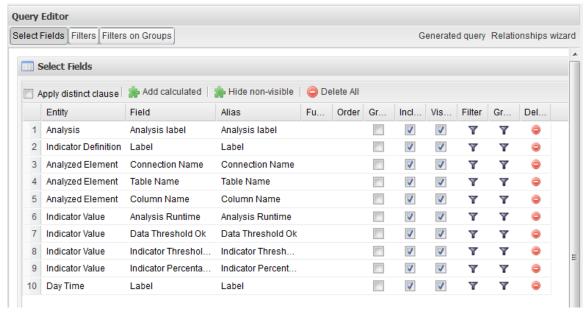
1. From the web user interface, click the icon, point to **Custom Reports** and click **TDQ Datamart** to open the corresponding page.



The table list in the **Schema** panel to the left of the editor differs according to the database used in the *datamart.jar* file. For further information about how to configure in the web server a datamart other than **Talend** datamart, see *Connecting to another datamart from the QBE page*.

The **Query Catalog** panel to the right of the editor shows by default a parent query folder that represents the current query being created. From this panel, you can create in the parent query one or more sub-queries to form groups of queries in a hierarchical tree. For further information, see *Creating and saving a group of queries*.

- 2. In the **Schema** panel and under **tdqdatamart**, expand the fact table holding the analysis results you want to build the query on, *Indicator Value* in this example.
- 3. From the tables in the **Schema** panel, drag the entities you want to include in the query to the **Query Editor**, or simply click them.

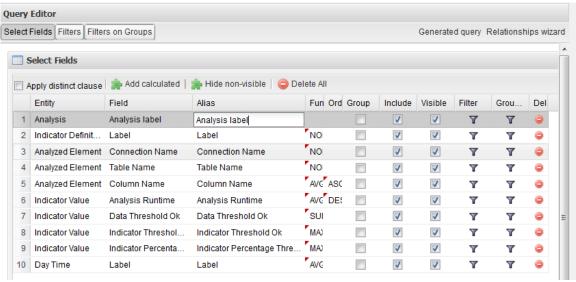


Consider as an example that you want to display the following items in the results of the query: analysis name (*Analysis label*), indicator name (*Label*), connection name (*Connection Name*), table name (*Table Name*), column name (*Column Name*), analysis runtime (*Analysis Runtime*) and analysis execution hour (*Lable*).

You want to include as well the following entities that will filter the results: *Data Threshold Ok*, *Indicator Threshold Ok* and *Indicator Percentage Threshold Ok*.

All entities in the **Schema** panel under **Datamart** that have the *OK* suffix help you to filter the query results according to the parameters you set in the **Filters** view of the **Query Editor**.

4. If required, click in the **Alias** column in the **Query Editor** and change all the names of the entities to give a more friendly names to the columns in the result table.

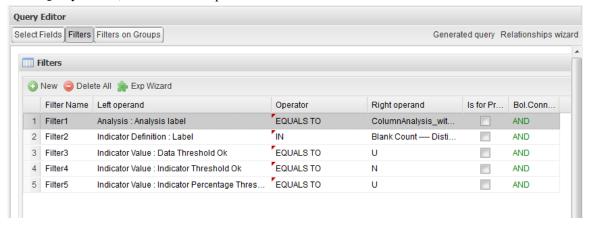


You can click the filter icon next to the entity name to add the entity directly to the filter table.

5. If required, clear the check boxes in the **Visible** column next to the entities you do not want to list in the query results table.

#### Setting a WHERE clause in the query

1. In the **Query Editor**, click **Filters** to open a new view.



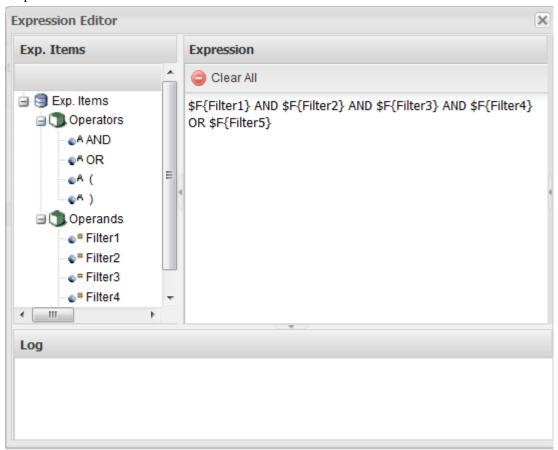
2. Either click the **New** button to add as many filters as needed, or drag the entity from the tables in the **Schema** panel.

If you click the filter icon next to the entity name in the **Select Fields** table, the filter will appear directly in the **Filters** table.

In this example, you want to filter:

• the analysis name to query a specific analysis, *ColumnAnalysis\_WithThresholds*,

- the indicators to collect only the statistics on **Blank Count**, **Duplicate Count**, **Null Count** and **Distinct Count**,
- the data, indicator and indicator percentage thresholds to show only the records that violates the defined thresholds.
- 3. Click **Exp Wizard** on top of the table to display the **[Expression Editor]** dialog box. Here you can modify the expression conditions.



- 4. Close the [Expression Editor] dialog box.
- 5. If required, use the **Query Catalog** panel to the right of the editor to create different levels of queries under the main query and save them as a group.

For further information, see Creating and saving a group of queries.

#### Saving and executing the query

1. Open the **Shortcuts** list at the top right corner of the page and select **Add to customized views**.

A dialog box is displayed.



- 2. Enter a name and a description for the query and then select **Public** or **Private** from the **Scope** list.
- 3. Click **Save** to close the dialog box.

The new query is listed in the **Customized views**.

For further information on how to access the Customized views, see Accessing the list of the defined queries.

- 4. Click **Preview** on top right corner of the page to see a view of the analyzed data.
- 5. Click **Preview** in the top right corner of the **Query Editor**.

A loading indicator is displayed and then a view opens displaying the results of the query.



6. Click **Worsksheet** on the top left corner of the page to open a view where you can add one or several worksheets to this interrogation.

In these worksheets, you can use different types of charts or tables to represent the query results. For further information on worksheets, see *Creating a worksheet for the QBE results*, and the SpagoBI quick start pdf at http://forge.objectweb.org/project/showfiles.php?group\_id=204.

## 3.4.3. Creating a worksheet for the QBE results

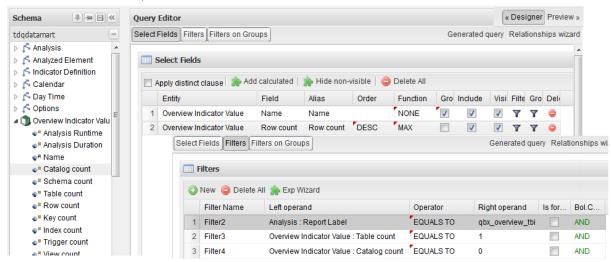
After designing your customized query using the QBE tool and interrogating the datamart that stores the analysis results, you can build a worksheet to represent the query results in charts or tables. You can also publish this worksheet and share it with other team members.

For further information on worksheets, see the SpagoBI quick start pdf at http://forge.objectweb.org/project/showfiles.php?group\_id=204.

#### **Prerequisites**

- You have accessed Talend Data Quality Portal as a user.
- A query has been created and executed on some analysis results in the datamart as outlined in *Building a query*.

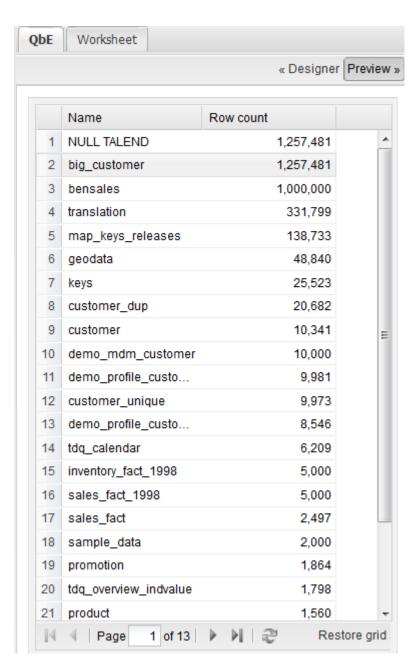
In this example the query interrogates the results of an overview analysis, *qbx\_overview\_tbi*, in the datamart, retrieves the list of tables, their names and the number of rows in each.



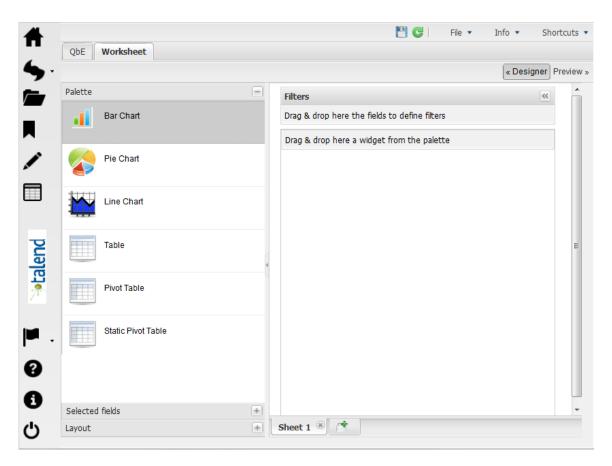
To build a worksheet for the query results, do the following:

1. Click the **Preview** in the top right corner of the page.

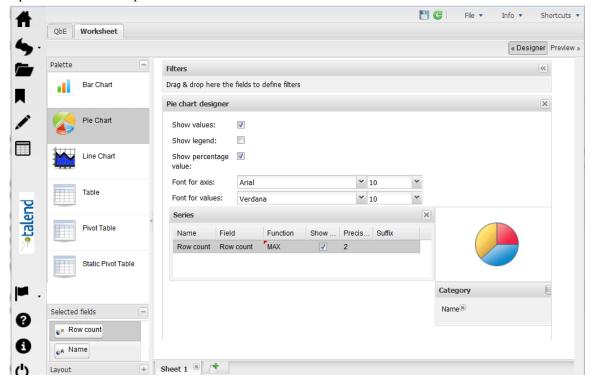
A loading indicator is displayed and then the **Results** view opens displaying the results of the query.



2. Click **Worsksheet** to open a view where you can add one or several worksheets to this interrogation.



3. From the **Palette**, drop the chart or the table you want to use to display the query results to the right panel, a pie chart in this example.

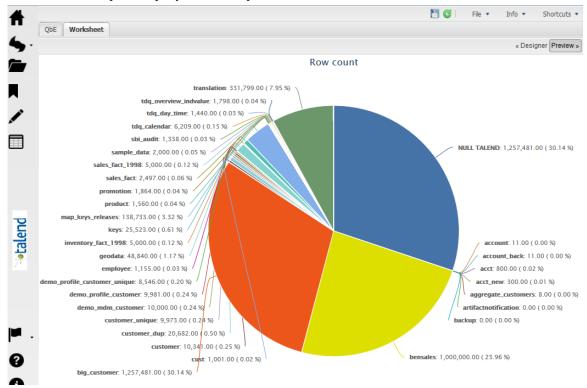


- 4. Click **Selected fields** at the bottom of the **Palette**, drop the element you want to use as category to the **Category** table and the element you want to use as query measures to the **Series** table.
- 5. Select the check boxes of the information you want to show in the pie chart.

It is not recommended to select the **Show legend** check box if you have profiled too many tables in the analysis. Otherwise you may have difficulty displaying the chart and the legend together in your browser.

You can add several sheets to your interrogations through clicking the plus button at the bottom of the worksheet and represent the query results in different charts and tables.

6. Click **Preview** to open the query results in a pie chart.

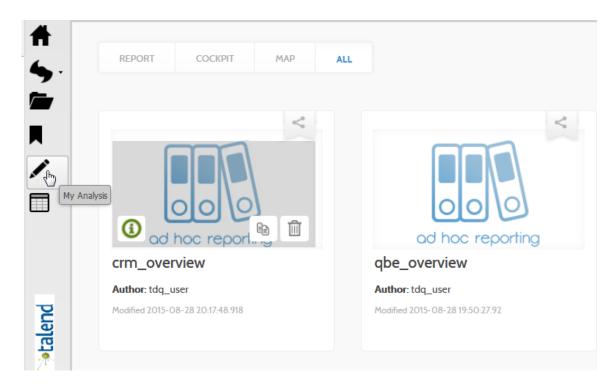


You can hide/show each of the table partitions in the pie chart by clicking the table name in the chart legend, when the legend is displayed.

- 7. Click the save icon in the top right corner of the page to open a form.
- 8. Fill in the form and select a folder in which to save the worksheet, if needed. Click Save.

The worksheet is saved in the selected folder and in the My analysis page.

9. On the toolbar, click to open a page listing the saved worksheets.



From this page, you can open the worksheet, clone or delete it.

## 3.4.4. Accessing the list of the defined queries

All the queries you create and save using the QBE tool are listed in the Customized views.

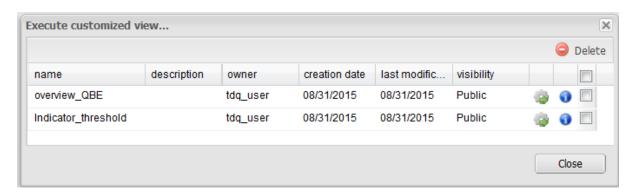
#### **Prerequisites**

- You have accessed Talend Data Quality Portal as a user.
- Some queries have already been defined and saved. For further information, see *Building a query*.

To access saved queries, do the following:

• In the QBE page, open the **Shortcuts** list at the top right corner of the page and select **Show customized** views.

A list opens in the view to show all saved queries.



From this view, you can:

- click to display the query template in the **Query Editor** and do necessary modifications in the query parameters or simply re-execute it.
- click ot to display the query metadata and do necessary modifications/verifications.
- select the check box corresponding to the query you want to delete and then click to delete it.

## 3.4.5. Creating and saving a group of queries

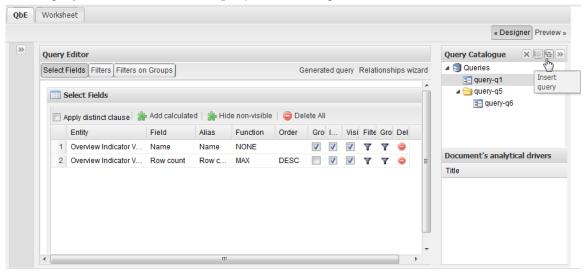
In the **QBE** page you have access to a **Query Catalog** panel to the right of the **Query Editor**. From this panel, you can insert one or more sub-queries in the query to form a hierarchical tree and save your queries as a group.

#### **Prerequisites**

- You have accessed Talend Data Quality Portal as a user.
- Some queries have already been defined. For further information, see *Building a query*.

To create different levels in the query tree and save your queries as a group, do the following:

1. In the **Query Catalog** panel to the right of the **Query Editor**, select the query under which you want to insert another query and then click the **Insert query** button on the panel tool bar.

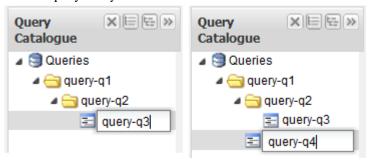


A different-level query is inserted under the selected query and an empty query template opens in the **Query Editor**.



- 2. Follow the procedure outlined in *Building a query* to define this new sub-query.
- 3. Double-click the query under which you want to insert a sub-query, and then click the **Insert query** button to add as many sub-queries as needed.

All different-level queries are displayed as a hierarchical tree in the **Query Catalog** panel. Each query can be a "parent" query of a sub-query at any level of the tree.



- 4. Define the new Query in the **Query Editor**.
- 5. Open the **Shortcuts** list at the top right corner of the page and select **Add to customized views** to open a dialog box.



- 6. Enter a name and a description for the query and then select **Public** or **Private** from the **Scope** list.
- 7. Click **Save** to close the dialog box.





# Chapter 4. Report management

This chapter provides detailed description of the important management options a business user can carry on the reports launched from the user interface in *Talend Data Quality Portal*.

These management options are accessible through the Talend Data Quality Portal toolbar.

# 4.1. Available management options for reports

All the pages of the different analytical tools contains icons that provide you with quick access to few operations that help you to manage the reports you launch from the user page in *Talend Data Quality Portal*.

The table below describes the quick access icons for the available management options.

Icon	Description
	executes the report selected from the <b>Report</b> list.
	saves the parameters you set in the current form and lists them in the <b>Saved parameters</b> view.
9	resets the parameter form to the default view.
	exports the current report in several formats including pdf, xls, jpg and rtf. For more information, see <i>Exporting the current report</i> .
•	displays the current report metadata.
	attaches a note to the current report. For more information, see <i>Attaching a note to the current report</i> .
*	creates a link to the parametrized reports.
	saves the current report into a personal folder.
	sends the current report by email. For more information, see <i>Sending the current report by e-mail</i> .
	prints the current report.
<u>6</u>	allows you to express your opinion on the current report.
Ð	shows/hides the web user interface header.
C	refreshes the current report execution.
5	goes back to the main page of the web user interface.

# 4.2. Exporting the current report

After launching a data quality report from *Talend Data Quality Portal*, you can export the current report in different formats.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been launched in *Talend Data Quality Portal*.

To export the current report, do the following:

1. From then menu bar, click the arrow next to **File**, point to **Export** and select the format in which you want to export the current report.

Depending on the format you select, either a window opens to display the exported report or a dialog box is displayed prompting you to open or save the report.

2. Select the **Save File** option and then click **OK** to export the current report and close the dialog box.

# 4.3. Sending the current report by e-mail

After launching a data quality report from *Talend Data Quality Portal*, you can send the current report to any recipient by email.

#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- At least one report has been launched in Talend Data Quality Portal.
- The right configuration for sending reports by email is put in place. For further information, see the *Talend Installation Guide*.

To send the current report by email, do the following:

- 1. From then menu bar, click the arrow next to **File** and select **Send by e-mail**.
  - A dialog box is displayed.
- 2. Fill in the fields with the relevant information including recipient's address, message title and message text and then click to send the report by email.

A message is displayed to confirm the operation.

# 4.4. Attaching a note to the current report

After launching a data quality report from *Talend Data Quality Portal*, you can attach an explanatory note or comment to this report.

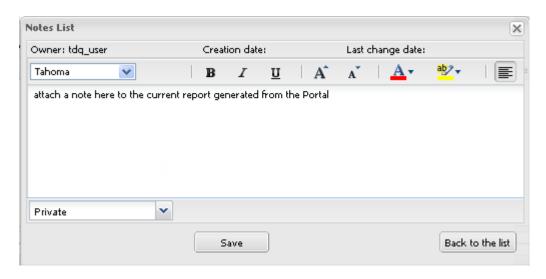
#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as a user.
- A report is open in Talend Data Quality Portal.

To attach a note to the current report, do the following:

1. From the menu bar, click the arrow next to **Info** and select **Notes**.

A dialog box is displayed.



- 2. Enter the text of the note you want to add to the current report.
- 3. Select **Private** or **Public** from the list below the text to define the status of the note. Notes labeled as private will be accessed only by the owner of the note. Public notes can be accessed by all users.
- 4. Click **Save**. A confirmation message is displayed.
- 5. Click **OK** to close the confirmation message.
- 6. Click **Back to the list** to open the note list.



7. From the note list, click:

Icon/Option	To
Export in PDF	exports the note in a pdf file.
Export in RTF	exports the note in an RTF file.
Q	opens a note from the list for edition purposes.
8	deletes a note from the list.



# **Chapter 5. Parameter values**

This chapter introduces data sets and List of Values (LoV).

It explains how an administrator can manage the List of Values parameters necessary to start building document templates in *Talend Data Quality Portal*.

# 5.1. Types of parameter values

If the first prerequisite to use document templates in *Talend Data Quality Portal* is defining the data sources where to get data, the second is to define the parameter values to be used in order to read data from these sources.

There are two types of parameter values: data sets and list of values (LoV). A data set uses a query to retrieve only one value from the data source. A list of values uses a query to retrieve several values from the data source. These values will be used as a list of possible values for a parameter.



You can use data sets only in the Openlaszlo dashboard templates for the time being.



Since LoV is used either to retrieve or produce values, different methods are available when defining a list of values and not only that of reading data from a data source. For further information, see *How to create a list of values*.

This way *Talend Data Quality Portal* uses data source and parameter definitions to get data and fill up documents at execution time.

Data sets and list of values are closely linked to roles. Depending on the roles you assign to end-users, they may have access to number of parameters when generating reports, dashboards, etc. For further information on managing access rights, see *Managing access rights on menus and analytical documents*.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at <a href="http://forge.objectweb.org/project/showfiles.php?group\_id=204">http://forge.objectweb.org/project/showfiles.php?group\_id=204</a> or check <a href="https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/">https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/</a>.

## 5.2. How to create a list of values

To start building document templates in *Talend Data Quality Portal*, you need first to define some parameters that will be used at the document execution time.

To define a list of values, you can use any of the following methods:

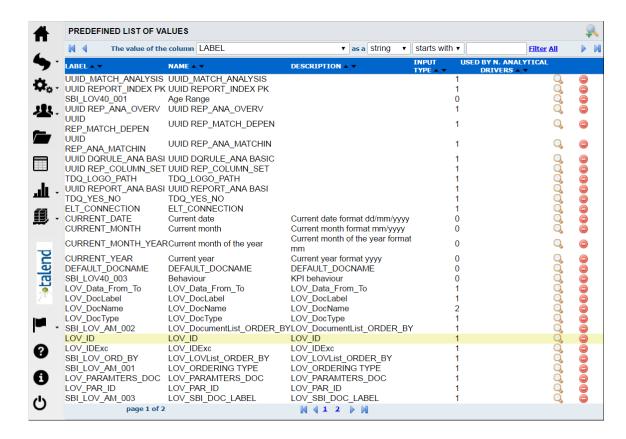
Method	Description
Fixed list of values	When you use a static definition, you are actually providing a list of value names and value description.
Query statement	When you use a query, you must provide the SQL statement to retrieve values from the data source.
Script to load values	When you use a script you have to write a Groovy script or Javascript in order to generate the values.
Java class	When you use an external call, you must indicate the class name of the Java class that will generate the values.

**Prerequisite(s)**: You have accessed *Talend Data Quality Portal* as an administrator.

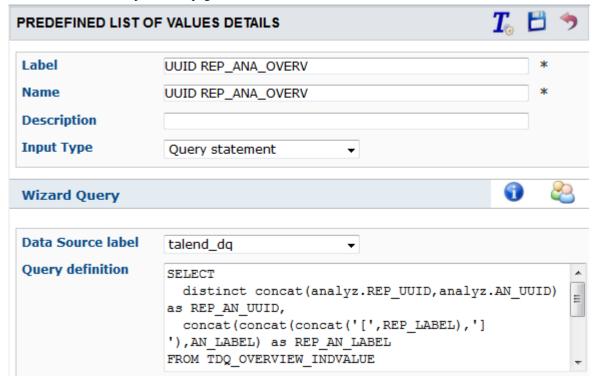
To create a list of values, do the following:

1. On the toolbar, click the **!!** icon and select **Lovs Management**.

A page of a predefined list of values is displayed.



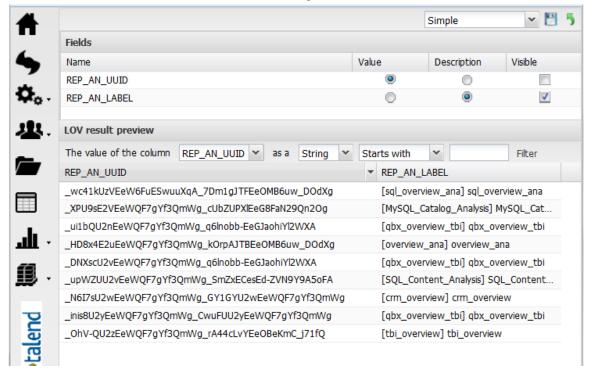
2. Click the icon to open a new page.



- 3. Enter a **Label** and a **Name** for the new list of values in the corresponding fields.
- 4. From the **Input Type** list, select the value input type according to your needs.

The fields to follow will vary according to the selected input type.

- 5. From the **Data Source label** list, select the database source to be associated with this new list of values.
- 6. In the **Query definition** field, enter the SQL statement for your query.
- 7. Click the Click the created value before saving it.



- 8. Select the check boxes of **Value**, **Description** and **Visible** columns according to the business needs and click the columns icon to save the list of values.
- 9. The newly created list of values is listed in the **Predefined list of values**.

After creating the list of values, you must configure permissions for end users on these lists. For further information on managing access rights, see *How to grant or forbid access on LoV*.

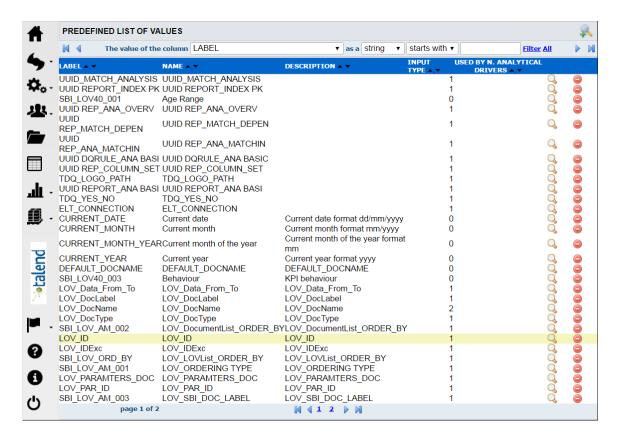
## 5.3. How to edit a list of values

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To edit a list of values, do the following:

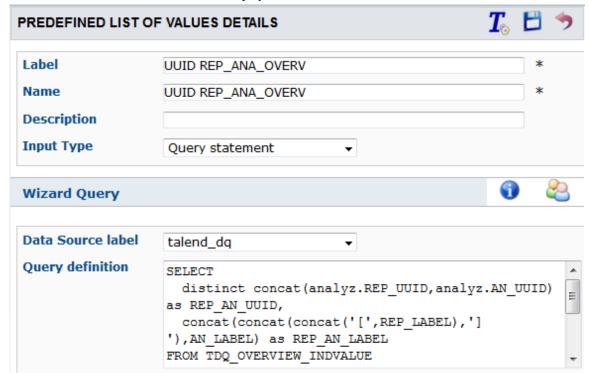
1. On the toolbar, click the ... icon and select Lovs Management.

A page of a predefined list of values is displayed.



2. Click the icon that corresponds to the list of values you want to edit.

The detailed view of the list of values is displayed.



- 3. Make necessary modifications and then click the **T** icon to test the modified list of values.
- 4. Click the icon to save your changes.

You can also edit access rights on these lists. For further information on managing access rights, see *How to grant or forbid access on LoV*.

## 5.4. How to delete a list of values

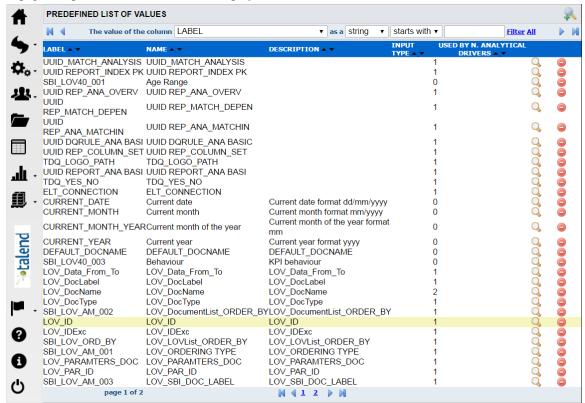
#### Prerequisite(s):

- You have accessed Talend Data Quality Portal as an administrator.
- At least, one list of values has been created.

To delete a list of values, do the following:

1. On the toolbar, click the **!!** icon and select **Lovs Management**.

A page of a predefined list of values is displayed.



- 2. Click the icon corresponding to the list of values you want to delete. A confirmation message is displayed.
- 3. Click **OK** to close the message.

The selected list of values is removed from the list of values.



# Chapter 6. Document management

This chapter provides detailed description of the important management options an administrator can carry on analytical documents from *Talend Data Quality Portal*.

## 6.1. How to create new Document templates

Each analytical Document (report, olap, dashboard, etc.) an end-user can access in the user page in *Talend Data Quality Portal* is based on a released Document template. This template goes through different stages before reaching the ready-to-use state in the end-user page.

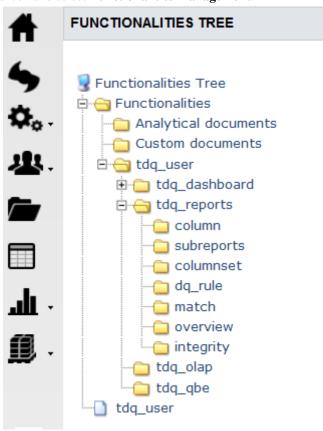
- A model "template" is usually created by the BI developer using a specific external software. From *Talend Data Quality Portal*, the BI developer attaches this model to a document template, defines the document template parameters and sets the document template state to **Test** in order to make it accessible by the BI tester.
- The BI tester tests the Document template and if the test results are error free, the Document template state should be changed to **Released**.
- Released Documents are accessible by end-users through the end-user page of *Talend Data Quality Portal* according to the rights assigned to end-users by the BI administrator. For further information on access rights, see *Managing access rights on menus and analytical documents*.
- **?**

Talend Data Quality Portal groups the administrator, developer and tester roles under one unique role: BI administrator. When you access the Portal using the administrator login information, you have the developer, tester and administrator rights at the same time.

**?** 

Document templates types used in *Talend Data Quality Portal* are jrxml and dashboard templates. Dashboard templates include jrxml and OpenLaszlo.

As an administrator, you can access a page which lists all the document templates registered in *Talend Data Quality Portal* if you click the select **Functionalities management**.



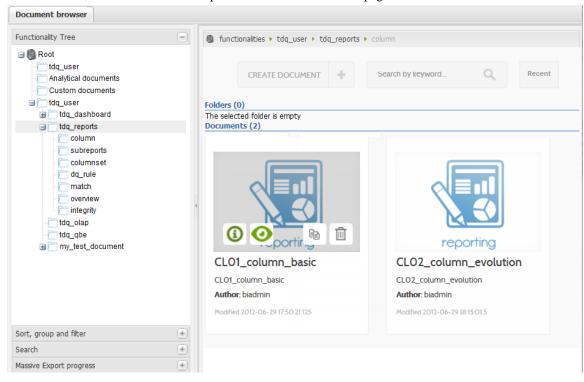
The following procedure explains how to create a new Document template in the BI administrator page.

#### **Prerequisite(s)**:

- You have accessed Talend Data Quality Portal as an administrator.
- A template "model" has already been created.

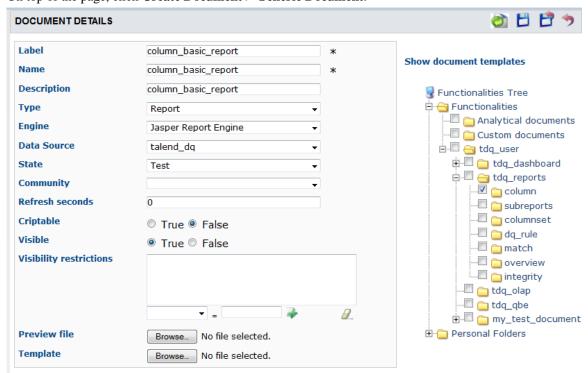
To create a Document template in the BI administrator page, do the following:

1. On the toolbar, click the **i** icon to open the **Document browser** page.



All the Documents accessible by the *tdq\_user* in the user page have been created by default in *Talend Data Quality Portal*.

2. On top of the page, click **Create Document** > **Generic Document**.



3. Define the attributes of the Document template as the following:

Field	Description	
Label	the Document unique identifier.	
Name	the Document name.	
Description	a brief description of the Document.	
Туре	this field shows if the Document is a Report, an On-line analytical processing (OLAP), a Data Mining model, a Dashboard, etc.	
Engine	the Engine used by this Document.	
Data source	the data source from which this Document reads data.	
State	this field indicates the stage at which the Document template is: <b>Development</b> , <b>Test</b> or <b>Released</b> . Moreover, the document template can also be <b>Suspended</b> if it cannot be executed anymore.	
Refresh seconds	the number of seconds used to refresh this Document.	
Visible	indicates whether the Document is visible when it is in Released state.	
Visibility restrictions	a logical expression that can be used to hide this Document.	

- 4. Click the **Browse...** button next to the **Template** field and select the file containing the model of the Document template. This model can be created with an external application suitable for the specific type of the analytical document.
- 5. From the **Functionalities Tree** to the right, select the folder under which you want to insert this new Document template.
- 6. If needed, click **Show document templates** to the right to display a table of the created templates.

#### Show functionalities tree

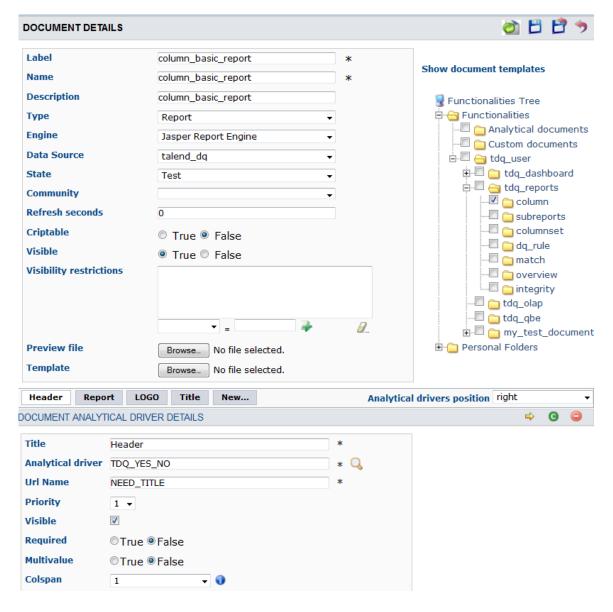
#### **Version Template**

	_		
Version 1	29/8/2015 13:19	b01_column_basic.jrxml	<u>Download</u>

From this table, you can manage listed templates.

#### 7. Click Save.

The new Document is listed in the **Document browser** page, and a new table opens below the **Document Details** page.



The next step to finalize the creation of the Document template is to define all the parameters necessary to the template, including the list of values.

1. In the lower part of the **Document Details** page, start defining the parameters of the analytical Document as the following:

Field	Description	
Title	the title of the document parameter.	
Analytical driver	the list of values that is applied to this document.	
Url Name	the key of the parameter: the url for the document execution will contain an attribute with a specified by the content of this field and value specified by the parameter value.	
Priority	If you define more than one parameter for the document, these parameters are sorted by this number.	

- 2. Define as many parameters as necessary by clicking the **New** tab.
- 3. Click the icon to save the new document or to save the document and go back to the document list.

The new Document is listed in the **Document browser** page.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at <a href="http://forge.objectweb.org/project/showfiles.php?group\_id=204">http://forge.objectweb.org/project/showfiles.php?group\_id=204</a> or check <a href="https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/">https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/</a>.

# 6.2. How to import/export Document templates

The import/export feature allows you to export one or more document templates from *Talend Data Quality Portal* and to import them into a different *Talend Data Quality Portal* installation.

There can be many different reasons for an export operation but some typical cases can be backups, upgrade to a new platform version and deploy of document templates from a development environment to a production environment.

You can access the import/export view by clicking the **Import/Export** item in the **Repository Management** menu. Once you access the page, you can see the export and import forms on the left and right sides respectively.

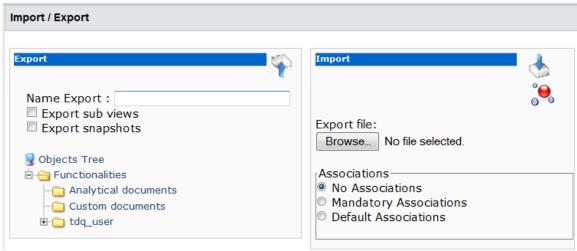
#### **Prerequisite(s):**

- You have accessed Talend Data Quality Portal as an administrator.
- At least one document template has been created.

To export a document template from your current environment, do the following:

1. On the toolbar, click the icon and select **Import/Export** page.

The corresponding page is displayed.



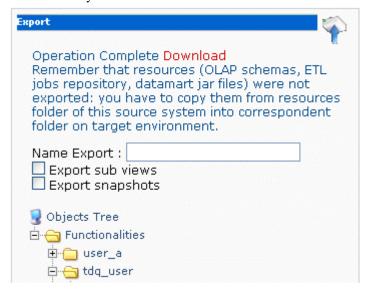
2. In the **Export** panel and in the **Objects Tree**, browse to the document template you want to export and select its check box.



- 3. In the **Name Export** field, enter a name for the exported document template.
- 4. Select the **Export sub views** and **Export snapshots** check boxes if you want to export the corresponding items with the selected document template.
- 5. Click the export icon in the upper right corner of the **Export** panel.

A progress information message is displayed and then the export result message appears prompting you to complement the export operation manually.

The exported document is saved in your current environment.

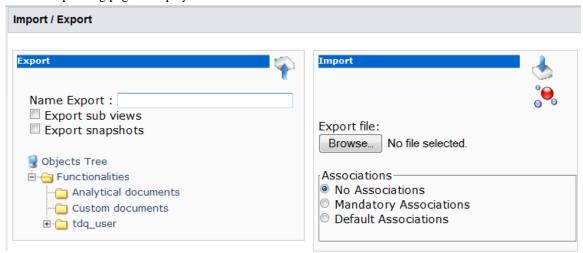


6. Click **Download** to open the exported document or save it in a path according to your needs in order to import it later into a target environment.

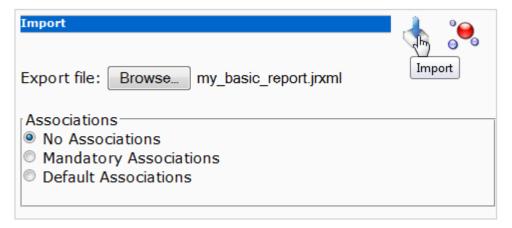
To import a document template into your current environment, do the following:

1. On the toolbar, click the icon and select **Import/Export** page.

The corresponding page is displayed.



2. In the **Import** panel, browse to the document template zip file to set its path in the **Export file** field.



3. From the **Association** list, select one of the available association modes whether you want to import any files associated with the document template.

You can click the icon in the upper right corner of the **Import** panel in order to attach any new associated file to the document you want to import.

4. Click the import icon in the upper right corner of the **Import** panel.

A new page is displayed listing the roles associated with the imported document template and those already in use in the current environment.



- 5. Click the button to open a new page that lists engine associations.
- 6. From the engine list, select the engine you want to associate with the imported document template.
- 7. Click the button to open a new page that lists data source associations.
- 8. From the data source list, select the data source you want to associate with the imported document template.
- 9. Click the button to open a new page that lists metadata conflicts, if any, between all the above imported items and those already in use in the current environment.
- 10. Click the button to go back to the **Import/export** page.



11. If required, click any of the red links listed as a result of the import operation to carry on the indicated operation.

# 6.3. How to edit Document templates

From the BI administrator page of *Talend Data Quality Portal*, you can edit document attributes or parameters according to business needs and to adapt document execution to the various types of end-users and end-user groups defined in the portal.



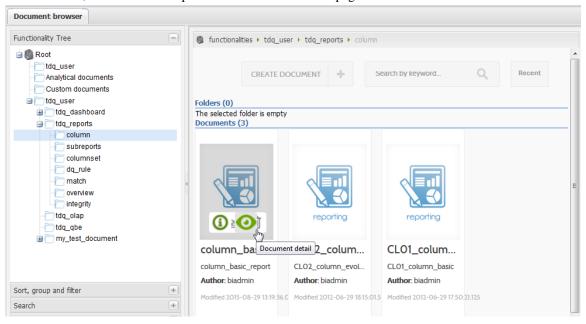
Editing the Document template is possible only through the same software that is used to create the template.

#### **Prerequisite(s)**:

- You have accessed Talend Data Quality Portal as an administrator.
- At least one Document has been created.

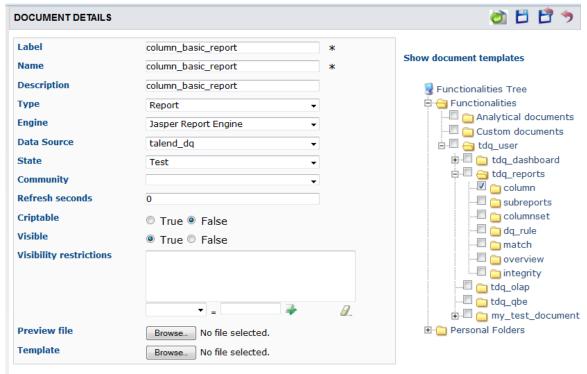
To edit document attributes or parameters, do the following:

1. On the toolbar, click the **to** open the **Document browser** page.



- 2. In the **Functionalities Tree** panel, browse to the file that holds the Document template you want to edit and click it.
- 3. Place your cursor on the document and select **Document detail**.

A new page opens to display the details of the Document template.



4. Modify any of the Document attributes or parameters as required.

From the **State** field, you can define the state of the document template in order to decide the stage at which the document template is: **Development**, **Test**, **Released** or **Suspended**.

5. Click the icon to save your modifications or to save your modifications and go back to the document templates list.

## 6.4. How to create a Cockpit document

In *Talend Data Quality Portal* you can create Cockpit documents, which are interactive dashboards that combine visualizations from different data sets.

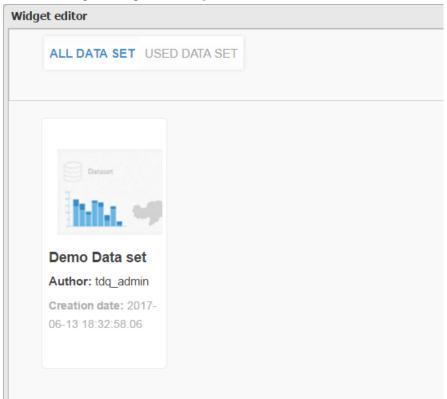
For further information about how to create data sets, see *Creating a data set as an administrator* and *Creating a data set as a user*.

#### **Prerequisite(s)**:

• At least one data set has already been created.

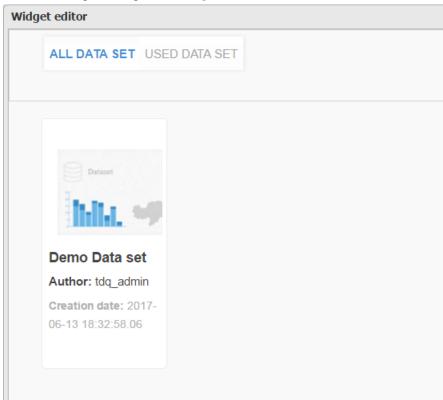
## 6.4.1. Accessing the widget editor as an administrator

- 1. On the toolbar, click the icon to open the **Document browser** page.
- 2. On top of the page, hover over **Create Document** and select **Cockpit**.
- 3. Click the icon on the top bar to open the **Widget editor** window.



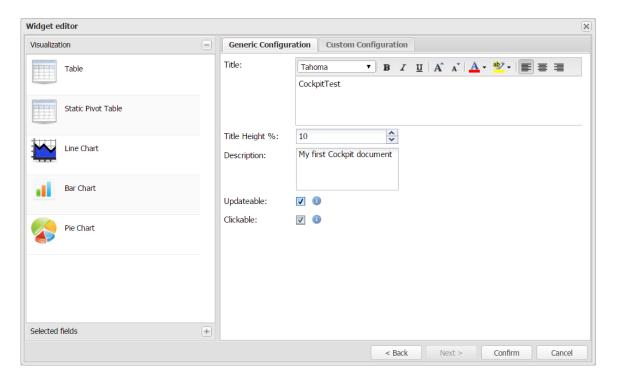
## 6.4.2. Accessing the widget editor as a user

- 1. On the toolbar, click the icon to open the **My Analysis** page.
- 2. On top of the page, click Create Analysis and select Cockpit in the My Analysis Type Selection window.
- 3. Click the icon on the top bar to open the **Widget editor** window.



## 6.4.3. Configuring the widgets

1. In the Widget editor window, select the data set which will populate the widget contents, and click Next.



- 2. In the **Generic configuration** tab, specify the widget details.
- 3. Open the **Custom configuration** tab.
- 4. Drag the desired widget from the **Visualization** list to the **Custom configuration** tab.
- 5. Click **Selected fields** to show the fields available from the selected data set.
- 6. Drag the desired fields from **Selected fields** list to the **Custom configuration** tab and click **Confirm**.

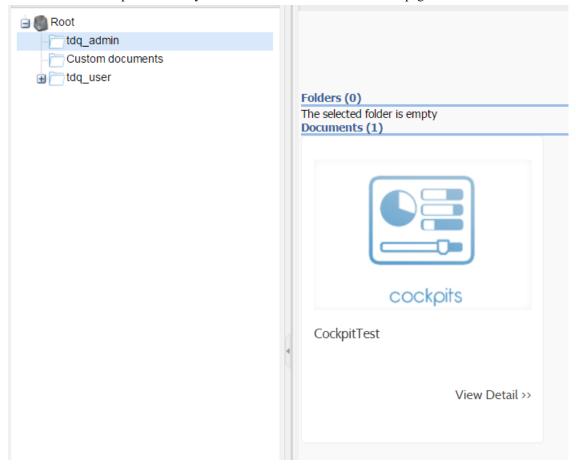
The widget is created and displayed on the current page.



## 6.4.4. Saving the Cockpit document

- 1. Click the look icon on the top bar.
- 2. In the dialog box, specify a name and a description for the Cockpit document.
- 3. Click **Save and return** to save the Cockpit document.

You can find the Cockpit document you created in the **Document browser** page.





# **Chapter 7. Roles and users**

This chapter describes in detail how an administrator can create new users or new roles. It also describes how to assign a specific role to some user in *Talend Data Quality Portal*.

# 7.1. Managing roles

Roles in *Talend Data Quality Portal* are used to associate permissions to document templates. Depending on the assigned roles, end-users may have access to number of parameters when generating reports, dashboards, etc.

When you access *Talend Data Quality Portal* for the first time as an administrator, you will see that some functional roles are already defined in the Portal. As responsibilities are different from one role to the other, it is important to be aware of role differences prior to assigning a role to a user. For further information on Portal roles, see *User roles*.



Talend Data Quality Portal groups the administrator, developer and tester roles under one role: BI administrator. When you access the Portal as an administrator, you can: create document templates, test the document templates, validate the tested document templates to make them available for the end-user and finally manage the end user page and security aspects.

As an administrator, you can also create roles other than the listed ones depending on the business needs of your enterprise.

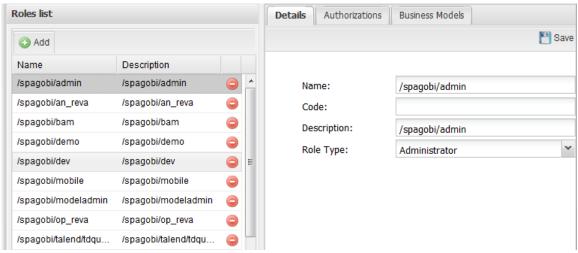
### 7.1.1. How to create a new role

This section guides you through the procedure to create a new role according to your business needs.

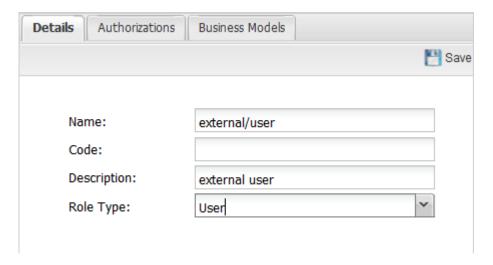
Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To create a new role, do the following:

On the toolbar, click the icon and select Roles Management.



- 2. Click the Add button to clear the **Details** panel to the right of the page.
- 3. Fill in the new role details in the corresponding fields.



- 4. From the **Role Type** list, select a type for the role you want to create among those listed.
- 5. Click **Authorization** on top of the panel and select the check boxes of the action you want to allow for the new user.
- Click the button. A confirmation message is displayed and the created role is listed in the Role list.
- 7. Click **OK** to close the message.

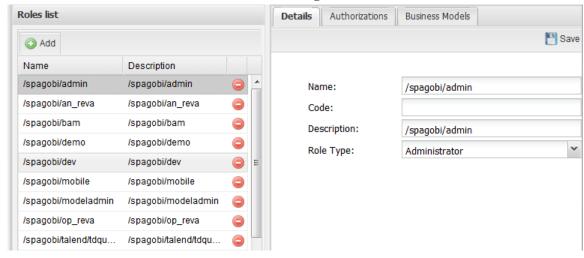
You can now assign this role to any of the users listed in the **User list**. For more information, see *How to assign one or more roles to a user*.

### 7.1.2. How to edit a role

**Prerequisite(s)**: You have accessed *Talend Data Quality Portal* as an administrator.

To edit the detail of an existing role, do the following:

On the toolbar, click the icon and select Roles Management.



2. From the **Roles list**, select the role you want to edit.

The details of the selected role are displayed in the **Details** panel to the right.

3. Modify the information in the fields as required and then click the save icon in the upper right corner of the **Details** panel.

A confirmation message is displayed.

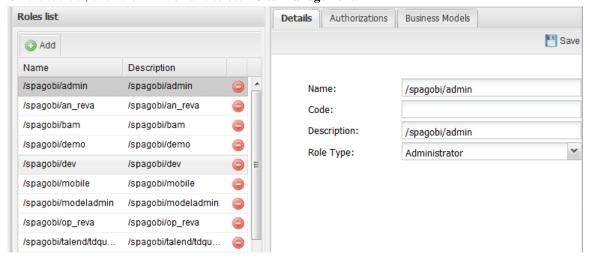
4. Click **OK** to close the message.

### 7.1.3. How to delete a role

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To delete any of the listed roles, do the following:

On the toolbar, click the icon and select Roles Management.



- 2. From the **Roles list**, select the role you want to delete and then click the icon next to the role description.

  A confirmation message is displayed.
- 3. Click **Yes** to confirm the deletion of the selected role. The role is removed from the **Roles list**.

## 7.2. Managing users

When a defined end-user or a group of end-users logs in to the user page in *Talend Data Quality Portal*, each of them logs in to a specific session tailored according to the roles an administrator assigns to them and the permission the administrator grants them. This will decide what menus they have access to in their sessions and what actions they can do at report or dashboard generation time.

The administrator must assign users or group of users specific role(s) in order to grant/forbid access to various parameters at report/dashboard generation time. Depending on the assigned role(s), user or group of users will have access to specific parameter values (LoV) when generating reports, dashboards, etc.

For more information on roles, see *How to assign one or more roles to a user*. For more information on parameter values, see *Parameter values*.

### 7.2.1. How to create a new user

From the **Users Management** page, you can create a new user and assign him/her a specific role according to business needs.

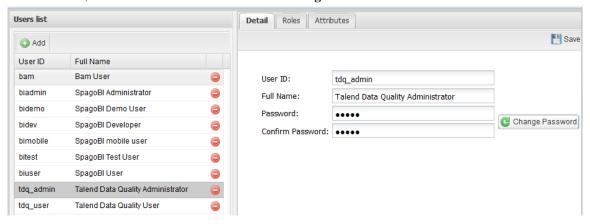
Talend Data Quality Portal enables you as well to create new users using the LDAP system. For further information, see Managing LDAP users.

The section below guides you through the steps of adding a user. For detailed information on assigning a role to user, see *How to assign one or more roles to a user*.

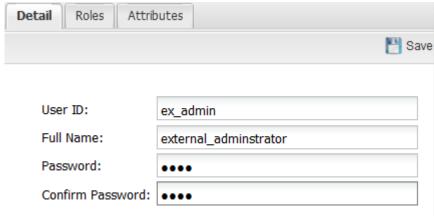
Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To create a new user, do the following:

On the toolbar, click the icon and select Users Management.



- 2. Click the Add button to clear the **Details** panel to the right of the page.
- 3. Fill in the details of the new user in the corresponding fields.



- 4. Click the button in the upper right corner of the panel. A confirmation message is displayed and the created user is listed in the **Users list**.
- 5. Click **OK** to close the message.

You can now assign any of the existing roles to this new user. For more information, see *How to assign one or more roles to a user*.

## 7.2.2. How to assign one or more roles to a user

Via the **Profile Management** menu on the menus bar of the administrator page, *Talend Data Quality Portal* enables you to assign functional role(s) to users, based on user responsibilities and the information to which each user requires access.

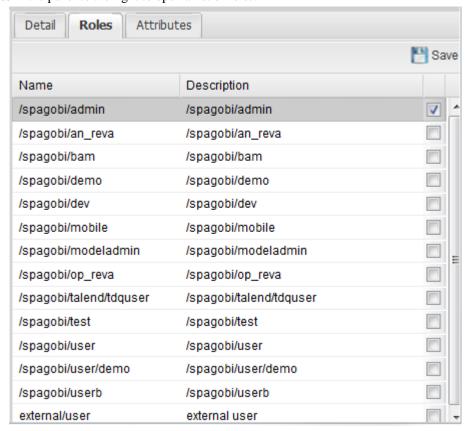
Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To assign a specific role to any of the users in the **Users list**, do the following:

On the toolbar, click the icon and select Users Management.



- 2. From the **Users list**, select the user to which you want to assign a specific role(s).
- 3. Click **Roles** in the panel to the right to open a list of roles.



4. Select the check box(es) of the role(s) you want to assign to the selected user.

- 5. Click the save icon in the upper right corner of the panel. A confirmation message is displayed.
- 6. Click **OK** to close the message.

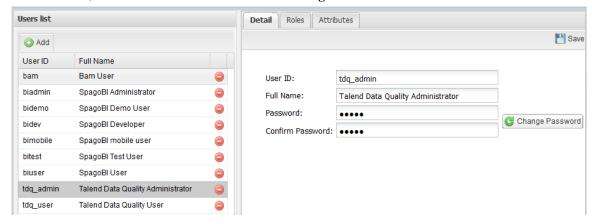
#### 7.2.3. How to edit a user

You can edit any user's detail or assign him/her different roles according to the enterprise business needs and defined responsibilities.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To edit the detail of an existing user, do the following:

On the toolbar, click the icon and select Users Management.



- 2. From the **Users list**, select the user you want to edit. The details of the selected user are displayed in the **Details** panel to the right.
- 3. Modify the user ID and name in the corresponding fields as required.

If you want to change the password, click **Change Password** to enable the **Password** field and then enter the new password as required.

- 4. Re-enter the password in the **Confirm Password** field.
- 5. Click **Roles** to access the role list and change role assignment. For more information, see *How to assign one or more roles to a user*
- 6. Click the save icon in the upper right corner of the **Details** panel. A confirmation message is displayed.
- 7. Click **OK** to close the message.

### 7.2.4. How to delete a user

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To delete any of the listed users, do the following:

1. On the toolbar, click the ... icon and select Users Management.



- 2. From the **Users list**, select the user you want to delete and then click the icon that corresponds to the selected user. A confirmation message is displayed.
- 3. Click **Yes** to confirm the deletion of the selected user. The user is removed from the **Users list**.

## 7.2.5. How to change your password

Administrators and users can change their own password.

- 1. Open a Web browser and type the URL of the *Talend Data Quality Portal*, as the following: http:// <server\_address>:<port>/tdqportal/.
- 2. On the login page, click **Change Password**.
- 3. In the window that opens, enter the following info in the corresponding fields:
  - Username
  - · Old Password
  - · New Password
- 4. Re-enter the new password in the **Retype New Password** field.
- 5. Click **Confirm** to save your changes.

You are redirected to the login page. You can now login to the Portal using your new password.

# 7.3. Managing LDAP users

Talend Data Quality Portal enables administrators to read user information from an LDIF template, which is a text file that defines roles and users or group of users.

Administrators can use an external application, OpenLDAP for example, to set their connection to an LDAP server and manage users from the server.

The prerequisite to be able to manage LDAP users is to activate LDAP during the installation of *Talend Data Quality Portal*. For more information on LDAP configuration, see the *Talend Installation Guide*.



# **Chapter 8. Menus and access rights**

This chapter provides the information administrators need to manage menus in the end-user page.

It also provides the information necessary to configure permissions on menus, document templates and List of Values in *Talend Data Quality Portal*.

## 8.1. Managing menus in the user page

Talend Data Quality Portal enables administrators to manage the menus and menu options which are displayed in the user page. According to business needs, an administrator can associate an end-user menu with different contents as the following: static page, document, functionality or nothing (empty menu).

Administrators can also associate every menu with different roles. For further information, see *How to grant or forbid access on menus*.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at <a href="http://forge.objectweb.org/project/showfiles.php?group\_id=204">http://forge.objectweb.org/project/showfiles.php?group\_id=204</a> or check <a href="https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/">https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/</a>.

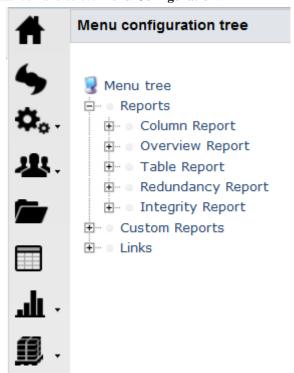
## 8.1.1. How to add new menus in the user page

You can add menus or menu options at any level in the user page according to business needs.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To add a new menu or menu option in the end-user page, do the following:

1. On the toolbar, click the **!!** icon and select **Menu Configuration**.

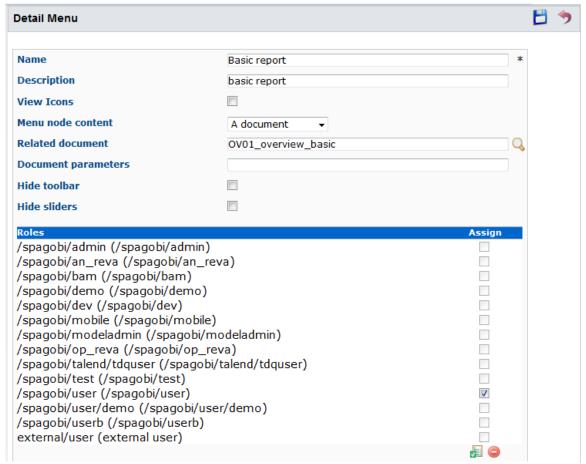


2. Click an item in the **Menu configuration tree** depending on the level at which you want to create the menu, sub menu or menu option.

If you click **Menu configuration tree**, you can insert a menu in the menu bar of the end-user page. If you click a first level or a second level node, you will add a sub menu or a menu option accordingly.



3. Select **Insert child** to open the **Detail Menu** page.



- 4. In the **Name** field, enter a name for the new menu option.
- 5. If required, enter a description in the corresponding field.
- 6. Select the **View Icons** check box if you want to display an icon next to the menu or menu option.
- 7. From the **Menu node content** list, select one of the following options:

Select	То
Empty	associate an empty page to the new node. This option is usually used for father nodes.

Select	То
Document	associate a specific document template with the new node. This option is usually used when you want to make it possible to execute a document template via the new node.
Static page	associate a static HTML page with the new node.
Functionality	associate several possible functions with the new node.

The fields that follow vary according to the selected content type. In this example, you select **Document**.

- 8. Click the icon next to the **Related document** field and select a Document template from the list to attach it to the new menu.
- 9. Click the icon in the upper right corner of the panel. The new node is displayed at the defined hierarchical level in the **Menu configuration tree**.

You can now assign any of the existing roles to this new menu or menu option. For more information, see *How to grant or forbid access on menus*.

## 8.1.2. How to edit a menu in the user page

You can edit menus or menu options at any level in the user page according to business needs.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

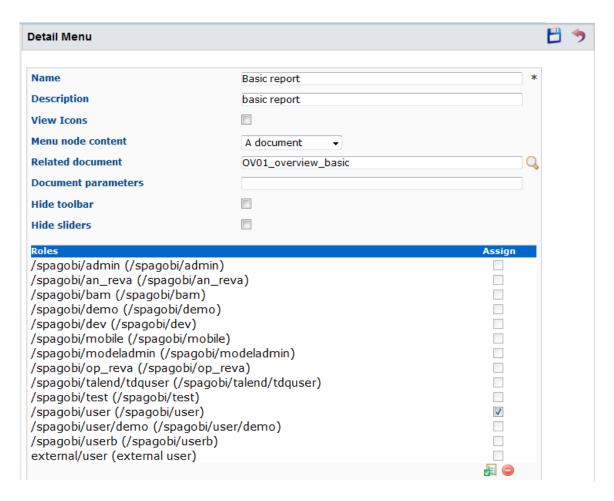
To edit a menu or menu option in the end-user page, do the following:

1. On the toolbar, click the ... icon and select Menu Configuration.



2. Browse to the menu or menu option you want to edit, click the item and select **Detail**.

A new page opens to display the details of the selected menu or menu option.



- 3. Modify any of the menu parameters including role assignments and attached document template as required.
- 4. Click the icon in the upper right corner of the panel to save your modifications.

# 8.1.3. How to edit the display of the report list in the user page

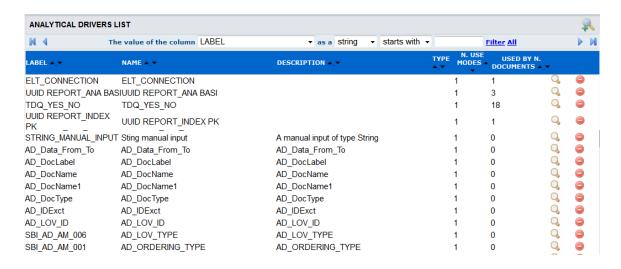
You can define the parameter for the display of the report name list in any of the report forms in the user page of *Talend Data Quality Portal*. You can display report names as a list in the **Report** combo box or as a list in a separate dialog box.

The advantage of the second method is that the complete name of the report will be displayed in the list which is not the case when report names are displayed in the **Report** combo box.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

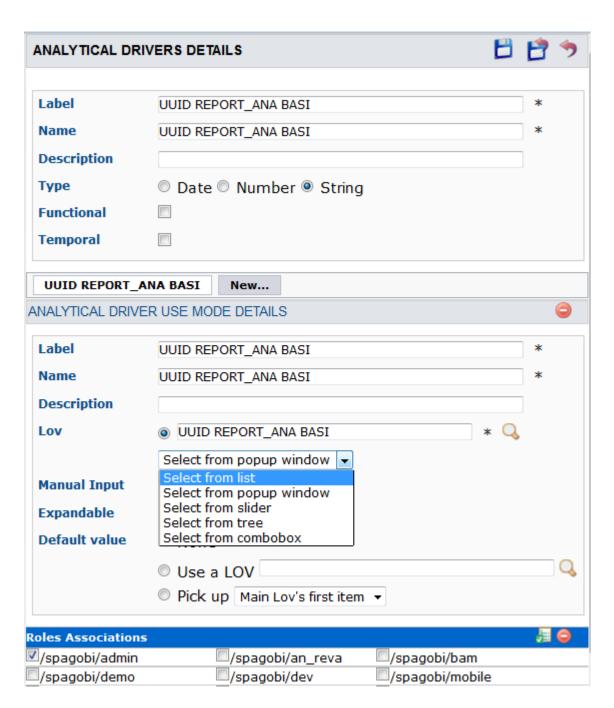
To edit the display of the report list in the user page, do the following:

1. On the toolbar, click the ... icon and select Analytical driver management.



2. Click the icon of the report type that corresponds to the report page in which you want to modify the display of the list in the end-user page of *Talend Data Quality Portal*. A new page is displayed.

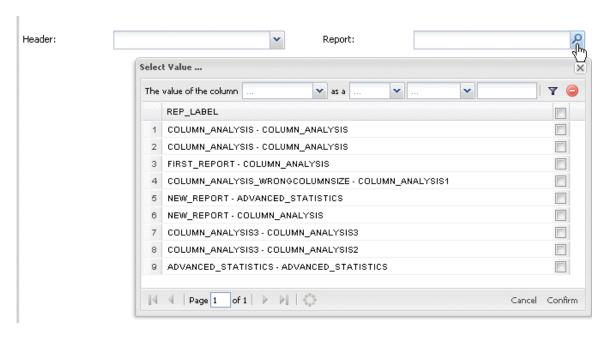
In this example, click the icon of the *UUID REPORT\_ANA BASI* in order to modify the display of the report list in the **Reporting - Column analysis - Simple statistics** page in the end-user page.



3. From the list below the **LoV** field, select a display option.

This choice will define the display of the report name list in the corresponding report form in the end\_user page of *Talend Data Quality Portal*.

If you select **Select from list**, the report names will be displayed in a list in a separate dialog box as the following:



If you select **Select from ComboBox**, the report names will be displayed in a list in the **Report** combo box as the following:



4. Click the icon in the upper right corner of the panel to save your modifications.

In order to see the results of your modifications:

- 1. Log in to Talend Data Quality Portal as a user.
- 2. On the toolbar, click the icon, point to **Reports** > **Column Report** and click the analysis type that corresponds to the report you modified in the administrator page, **Simple statistics** in this example.
- 3. In the **Report** field, click the search icon to display the available report name list according to the defined parameters.

## 8.1.4. How to delete menus from the user page

You can delete menus or menu options at any level in the user page according to business needs.

Prerequisite(s): You have accessed Talend Data Quality Portal as an administrator.

To delete a menu or menu option in the user page, do the following:

1. On the toolbar, click the **!!** icon and select **Menu Configuration**.



- Browse to the menu or menu option you want to delete, click the node and select Erase. A confirmation message is displayed.
- 3. Click **OK** to confirm the deletion operation and close the message. The selected node is deleted from the **Menu configuration tree**.

# 8.2. Managing access rights on menus and analytical documents

In order to establish clear user roles and responsibilities, *Talend Data Quality Portal* offers a very fine-grained role-based security feature that involves lists of values, document templates and end-user menus.

Access rights on the menus in the end-user page in *Talend Data Quality Portal* are role-based. For each role, the menus available on the menus panel in the end-user page as well as access rights to document templates and associated list of values may differ.

For each user role, it is possible to define:

- which menus or menu items are accessible,
- permission on document templates and list of values.

For more information, download the SpagoBI quick start guide from SpagoBI Documentation at http://forge.objectweb.org/project/showfiles.php?group\_id=204 or check https://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/.

## 8.2.1. How to grant or forbid access on LoV

Talend Data Quality Portal enables you to associate access rights with the defined lists of values.

#### **Prerequisite(s)**:

- You have accessed Talend Data Quality Portal as an administrator.
- At least one role and one list of values have been created.

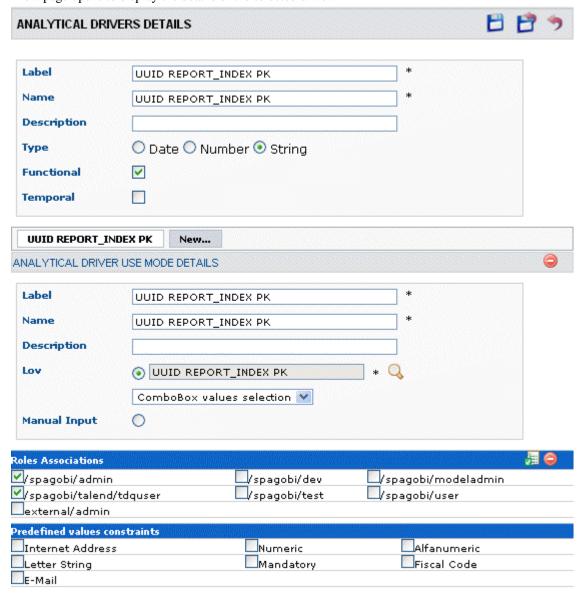
To grant access on lists of values, do the following:

1. On the menu bar of the BI administrator page, click **Profiling** and select **Analytical driver management** to open the corresponding page.



2. Click the  $\bigcirc$  icon that correspond to the analytical driver with which the list of values is associated.

A new page opens to display the details of the selected driver.



In the lower part of the page, you can access the list of the already defined roles.

- 3. Select the check box of the role(s) for which you want to grant access to the selected driver and associated list of values.
- 4. Click the icon in the upper right corner of the panel to save your modifications.

# 8.2.2. How to grant or forbid access on document templates

Talend Data Quality Portal enables you to associate access rights with a group of document templates.

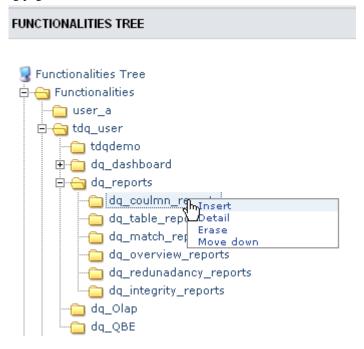
Access rights on document templates are role-based. You can assign a role to a group of document templates via **Profiling > Functionalities management** where document templates are grouped under specific folders.

#### **Prerequisite(s)**:

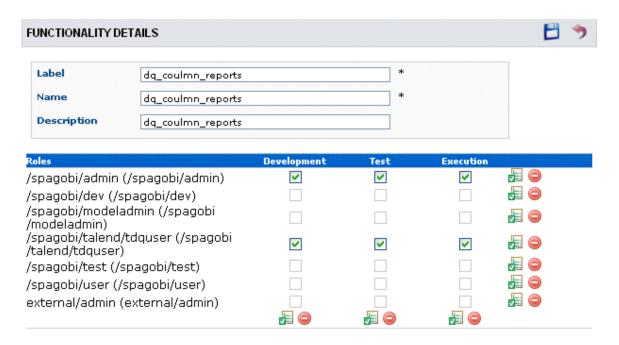
- You have accessed Talend Data Quality Portal as an administrator.
- At least one role and one document template have been created.

To grant access on a group of document templates, do the following:

1. On the menu bar of the BI administrator page, click **Profiling** and select **Functionalities management** to open the corresponding page.



- 2. Browse to the folder of the group of document templates for which you want to define access rights and click it.
- 3. Select **Detail** to open a new page.



A list of the already defined roles is displayed in the lower part of the page. Here you can define a role-based access to the selected group of document templates. By defining the role-based access, you also define the access type, whether to access the group of document templates as a developer, a tester or an administrator. For further information on user roles in *Talend Data Quality Portal*, see *User roles*.

4. Select the check box(es) corresponding to the role(s) and access type according to business needs.



You can use the and icons in order to select all the check boxes in a specific row or column and clear all the selected check boxes in a specific row or column respectively.

5. Click the icon in the upper right corner of the panel to save your modifications.

Later, users of *Talend Data Quality Portal* who are assigned any of these roles will have access to document templates according to the access rights and access type defined in this page.

## 8.2.3. How to grant or forbid access on menus

Via the **Menu configuration** page, you can assign functional role(s) to menus based on user responsibilities and the information to which each user requires access.

#### Prerequisite(s):

- You have accessed Talend Data Quality Portal as an administrator.
- At least one role has been created.

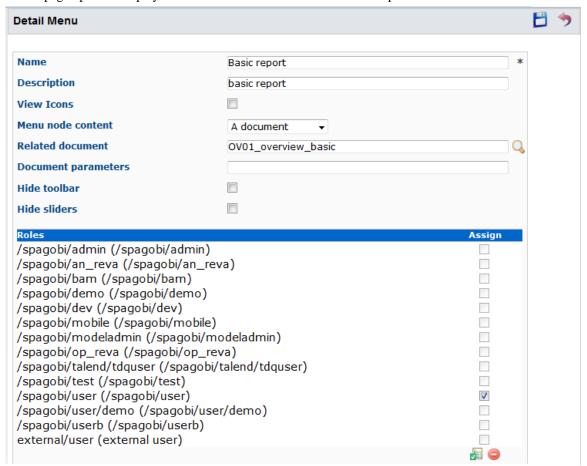
To grant access on menus in the end-user page, do the following:

1. On the menu bar of the BI administrator page, click **Profiling** and select **Menu configuration** to open the corresponding page.



2. Browse to the menu or menu option for which you want to define access rights, click the node and select **Detail**.

A new page opens to display the details of the selected menu or menu option.



In the lower part of the page, you can access the list of the already defined roles.

- 3. Select the check box of the role(s) for which you want to grant access to the selected menu or menu option.
- 4. Repeat the operation to grant access for every menu option at any level of the **Menu tree**.



All access rights to end-user menus you grant to a father node in the Menu tree are applied to all related children nodes

5. Click the icon in the upper right corner of the panel to save your modifications.



It is also possible to define access rights on certain functionalities through **Tools - Role synchronization**. From this page, you can select or clear the check box of any of the listed functionalities in order to grant or forbid access to the relevant role respectively.



# **Chapter 9. Advanced Configuration**

This chapter provides information about advanced configuration of *Talend Data Quality Portal*.

## 9.1. IP address configuration

In order to be able to work with *Talend Data Quality Portal* when installed using *Talend Installer*, you must edit a file and configure the IP address before you start the Portal.



This configuration is not mandatory, it depends whether the hostname indicated in the file is mapped to a unique IP address or to multiple IP addresses.

To do so, proceed as follows:

• Edit the \talpaache-tomcat\conf\server.xml file and modify the value properties of the Environment element: type your IP address where the hostname is indicated (in the below example, the hostname is indicated before the port number, 8580).

```
<Environment name="spagobi_service_url" type="java.lang.String" value="http://10.42.20.35:8580/tdqportal"/>
<Environment name="spagobi_host_url" type="java.lang.String" value="http://10.42.20.35:8580"/>
<Environment name="talend_logo_path" type="java.lang.String" value="http://10.42.20.35:8580/tdqportal/docs/t</pre>
```

# 9.2. Connecting to another datamart from the QBE page

In *Talend Data Quality Portal*, QBE is natively configured with a **Talend** datamart which stores all the results of the analyses executed in the Studio. When an end-user or a data analyst accesses the **Schema** panel in the **QBE** page, they access by default this **Talend** datamart and generate reports on analysis results.

However, it is still possible to configure a new datamart in the Portal and generate reports on data different from that stored in the **Talend** datamart.

In order to do that, you must create a new datamart jar file and add it in the corresponding folder on the web server.

#### Prerequisite(s):

- You have accessed the server and Talend Data Quality Portal as an administrator.
- · You must use the star schema data model to generate the new datamart.

To create a new datamart jar file and use it for the QBE functionality in the Portal user interface, do the following:

- 1. Create your datamart and export the project as a *datamart.jar* file as outlined in http://wiki.spagobi.org/xwiki/bin/view/spagobi\_server/Create+the+datamart.
- 2. In your local Tomcat folder and in the following path apache-tomcat-7.0.2tdqportal\resources\qbe\datamarts \tdqdatamart, backup the **Talend** report datamart called *datamart.jar*.
- 3. Add the new *datamart.jar* file in the same path.
- 4. Restart the web server.

From now on, every time an end-user or business analyst accesses the **Schema** panel in the **QBE** page in the Portal user interface, they access the new datamart. They access the original data in the new datamart and not analysis results as it is the case when they connect to the default database, **Talend** datamart.

For further information about the QBE page, see Custom Reports.

# 9.3. Customizing logos in reports

The logo file to use as a header in the reports you launch from the Portal is a **Talend** logo by default, but you can decide to use a logo of your choice to make your reports comply with the corporate graphical guidelines.

You can use a local logo or load a logo from an external URL.

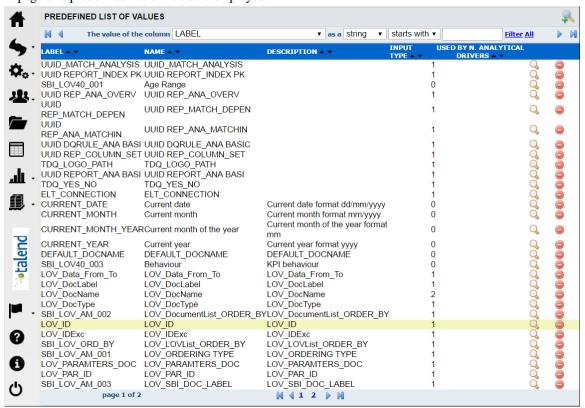
#### **Prerequisite(s):**

• You have accessed Talend Data Quality Portal as an administrator.

To set the Portal to use a logo of your choice in the generated reports, do the following:

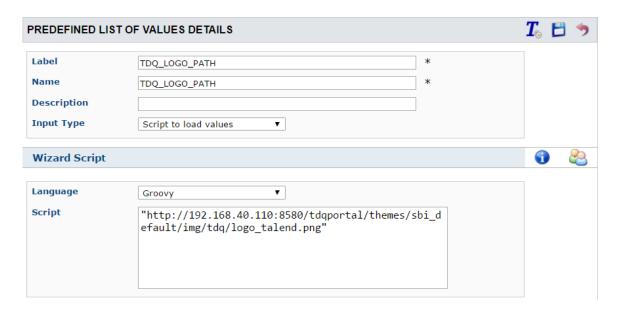
- 1. To use a local logo, paste your logo file in the root directory of *Talend Studio* in the file: /apache-tomcat/webapps/tdqportal/themes/sbi\_default/img/tdq.
- 2. On the toolbar, click the ... icon and select Lovs Management.

A page of a predefined list of values is displayed.



3. Click the icon next to the value **TDQ\_LOGO\_Path**.

The detailed view of the selected value is displayed.



4. In the **Script** field, set the path to your logo file.

If you want to load a logo from an external URL, set the external URL in this field.

5. Click the icon.