IWS BI Dashboard Template User Guide

Introduction

This document describes the features of the Dashboard Template application, and contains a manual the user can follow to use the application, connecting and configuring a Data Source, creating a Dashboard and its objects, and generate reports for that Dashboard.

Comments

General:

The software shall provide the necessary tools to allow a user to create a Dashboard based on the queries created.

Electronic Signatures (Security System)

The system administrator must be able to access the user account settings to create new accounts, lockout users, and de-authorize them.

Nobody (not even the System Administrator) can have access to the password of any user.

Overview and Application Layout

This section describes the **Overview and Application Layout** of the Dashboard Template

Header

1. Home Screen

This button opens the Home Screen of the application, where you can install the Chart Control Objects.

2. Dashboard

This button opens the Dashboard screen, where you can see the selected Dashboard.

3. Report

This button opens the Report screen, where you can create a report for the selected dashboard, save and/or print it.

4. Switch User

This button opens the Logon screen, there you can change the user connected to the application, and edit the users configured for the application.

5. License

This button opens the License popup, where the user can get the Site Code to license the application, or check if the application is licensed.

6. Exit Application

This button is used to exit the application, finishing all the background tasks from InduSoft.

Status Bar

1. Language Screen

The user can open the popup to select the Application Language, and choose between 8 languages for this application.

2. Web Client

The user can access the web client for the application by clicking on the second and third buttons on the status bar (Computer name and Computer IP address).

3. Database Status

On the Database Status screen, the user can check the connection to the Databases configured for the application. The user can check if there's a connection, and if it's working or there's an error to connect to this Database.

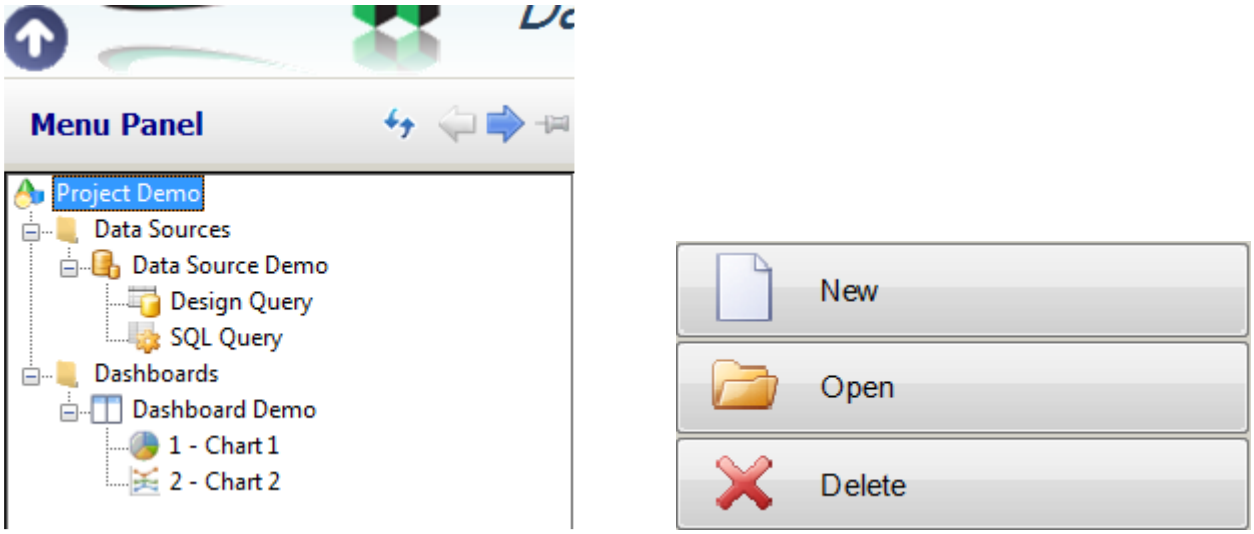
4. System Status

The user can also check the application status, it's possible to see what task the system is running at the moment.

5. Log On

The user can use the status bar to open the Logon popup, where it's possible to switch the user connected to the application or Log Off.

Tree View



The **Tree View** is where the user can create projects with the Dashboards wanted. The user can open the tree view by clicking on the arrow button on the header. The user can click on the arrows to move the **Tree View** for the left/right side of the screen, click on the refresh button to refresh the **Tree View** and on the pin-up button to fix the tree view on the screen, so it won't close when the user open a Dashboard.

Click on the **Project** to select it, and then the user can:

- Create a New Project
- Open a Project
- Delete the selected Project

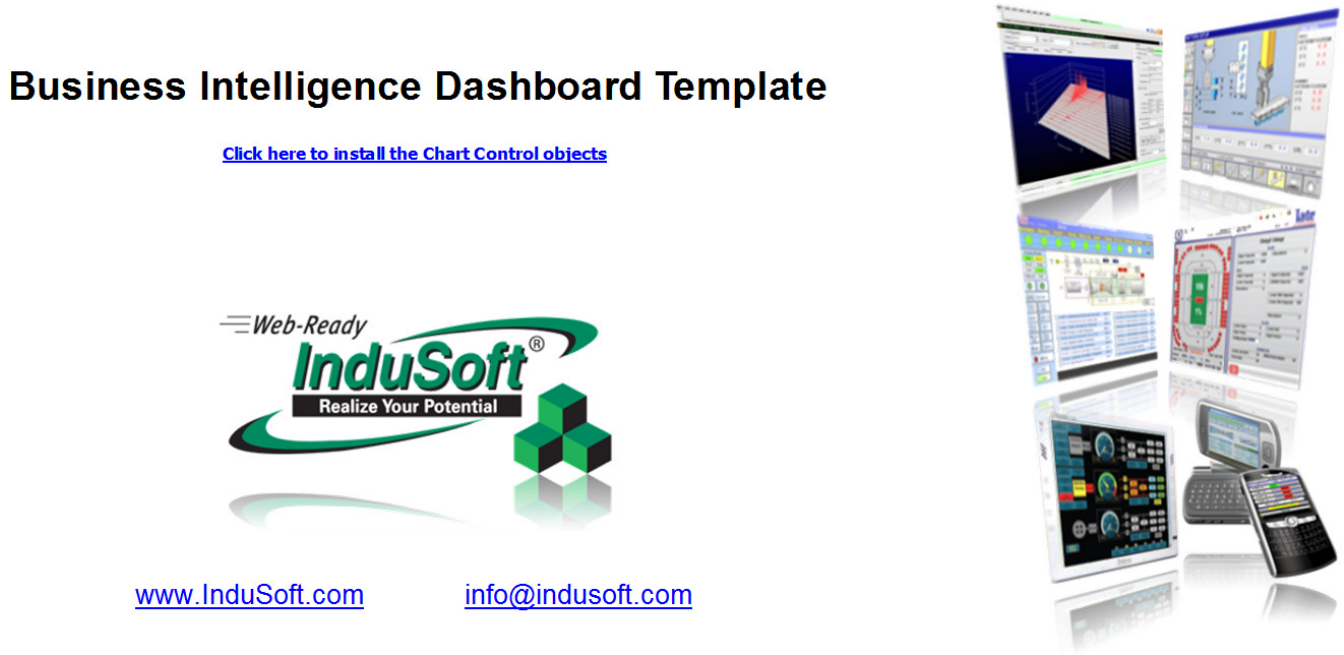
On the **Data Source**, the user can:
- Create a New Data Source
- Edit the selected Data Source
- Delete the selected Data Source

The user can select a data Source, and add queries for it. With this application the user can add queries on a Design mode, where the user can select the settings and the application will create the SQL for it, or the user can add a SQL query manually, writing the Query on the designed box.

On the **Dashboard** the user can:
- Create a new Dashboard
- Edit the select Dashboard
- Add charts for the selected Dashboard
- Edit the default settings for the Dashboard skins

Instructions for creating and configuring a project are in the Configuration Section of this manual.

Main Screen



On the Main Screen, the user can install the **Chart Control Objects** needed to open the dashboards, and access the InduSoft website or send an e-mail to InduSoft.

Instructions for installing/uninstalling the Chart Components are in the next section.

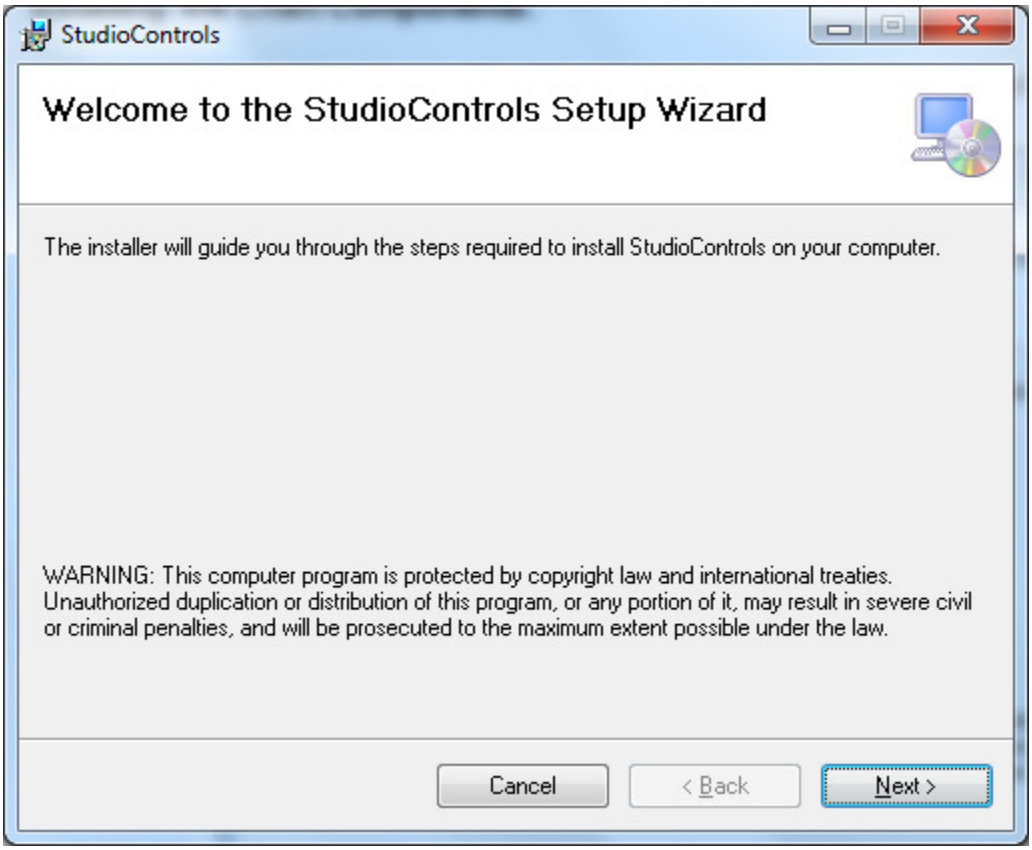
Installing and Uninstalling Chart Components

This section describes how to **Install and Uninstall the Chart Components** used on the Dashboard Application.

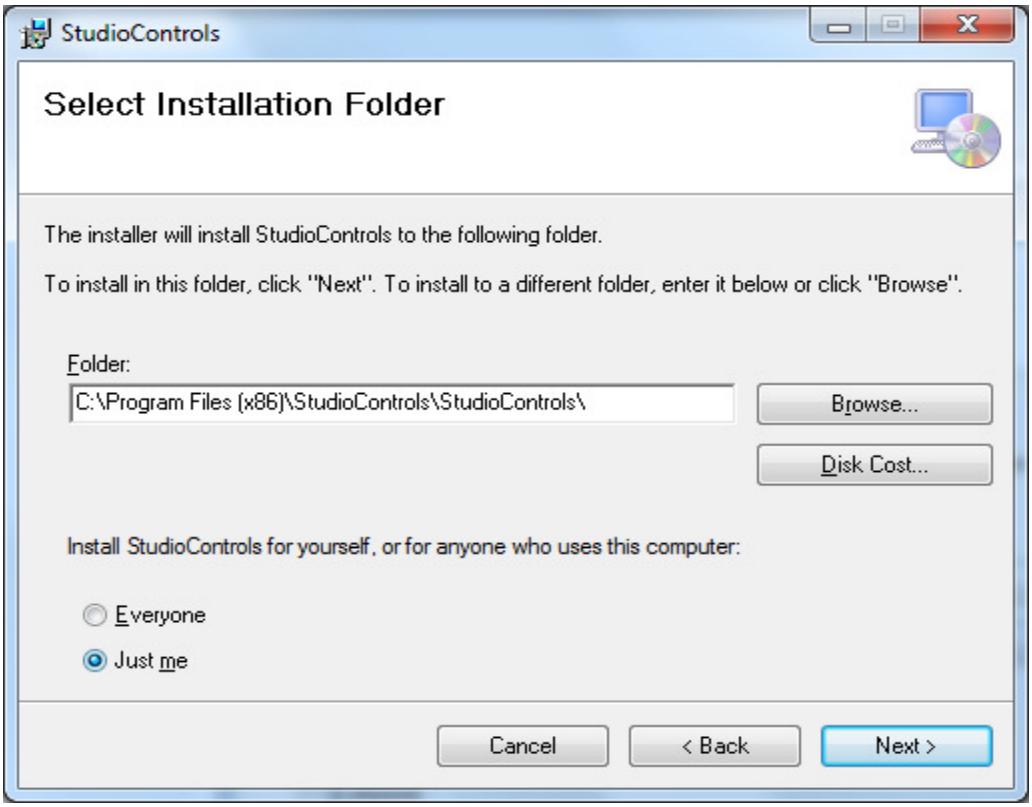
Click on the Link at the Main Screen to start the wizard for installing/uninstalling the Chart Components

Installing the Chart Components:

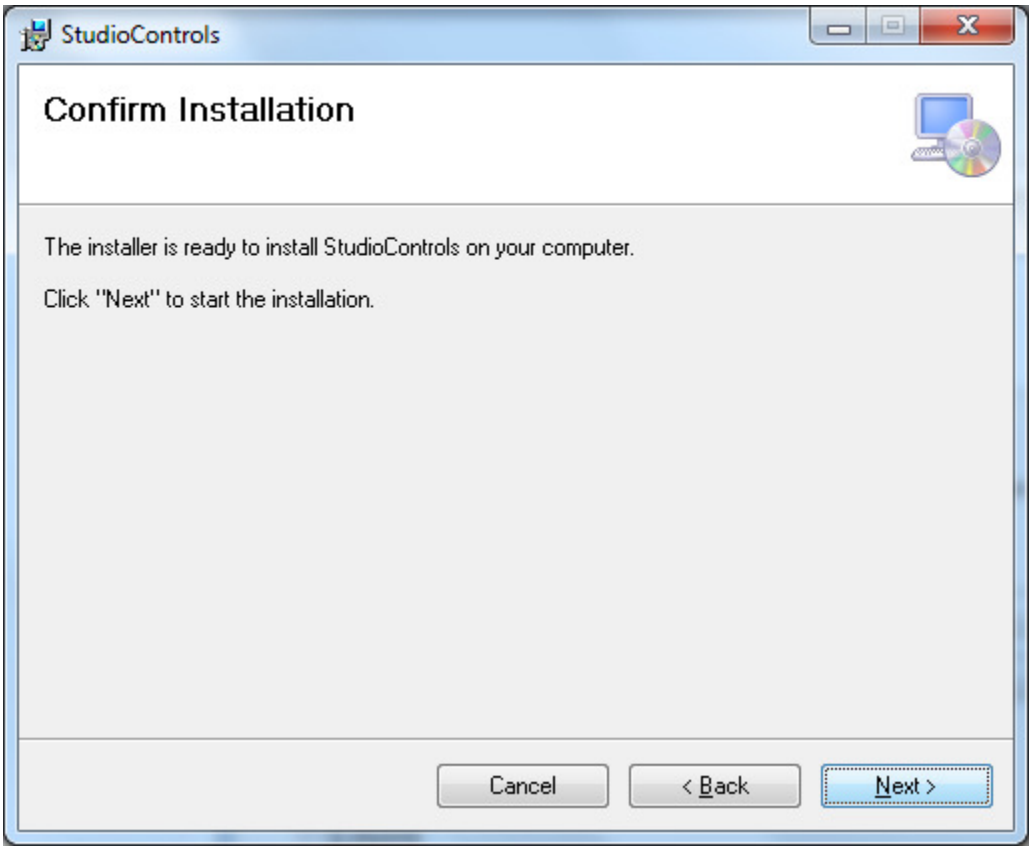
1- Open the Wizard to install the Chart Components on the Main Screen of the application.

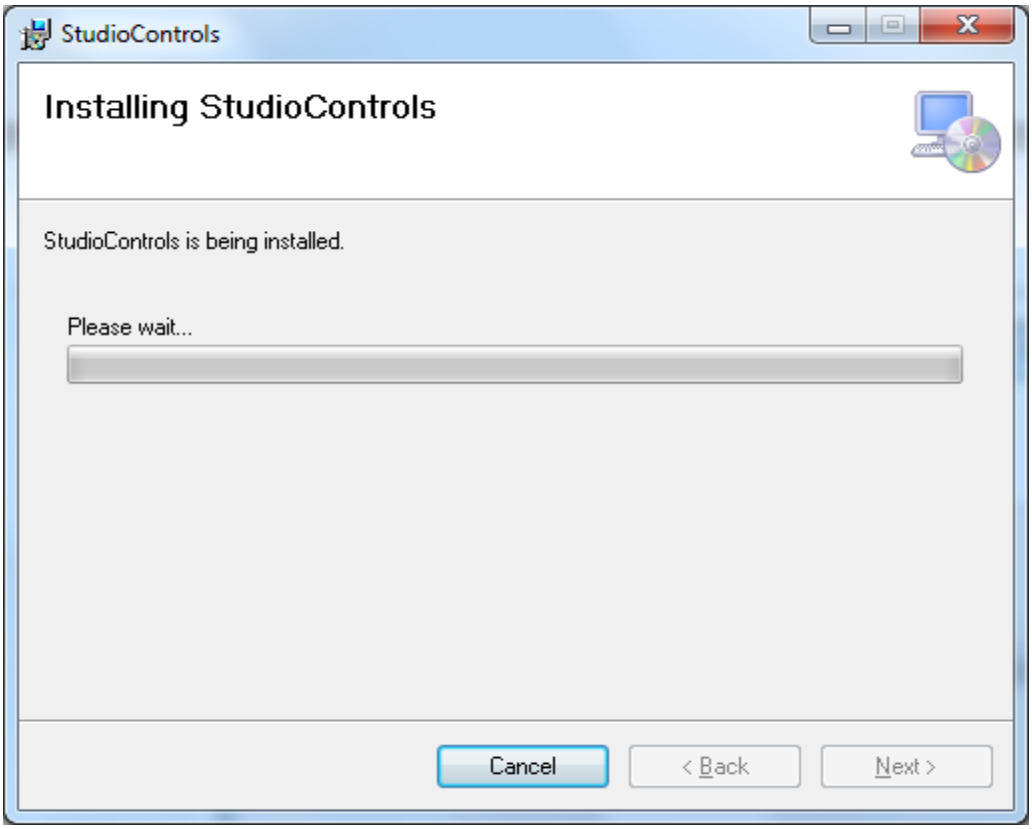


2- Click on Next, and the screen to select the Installation Folder and the users on the computer that will have the Control Components installed.

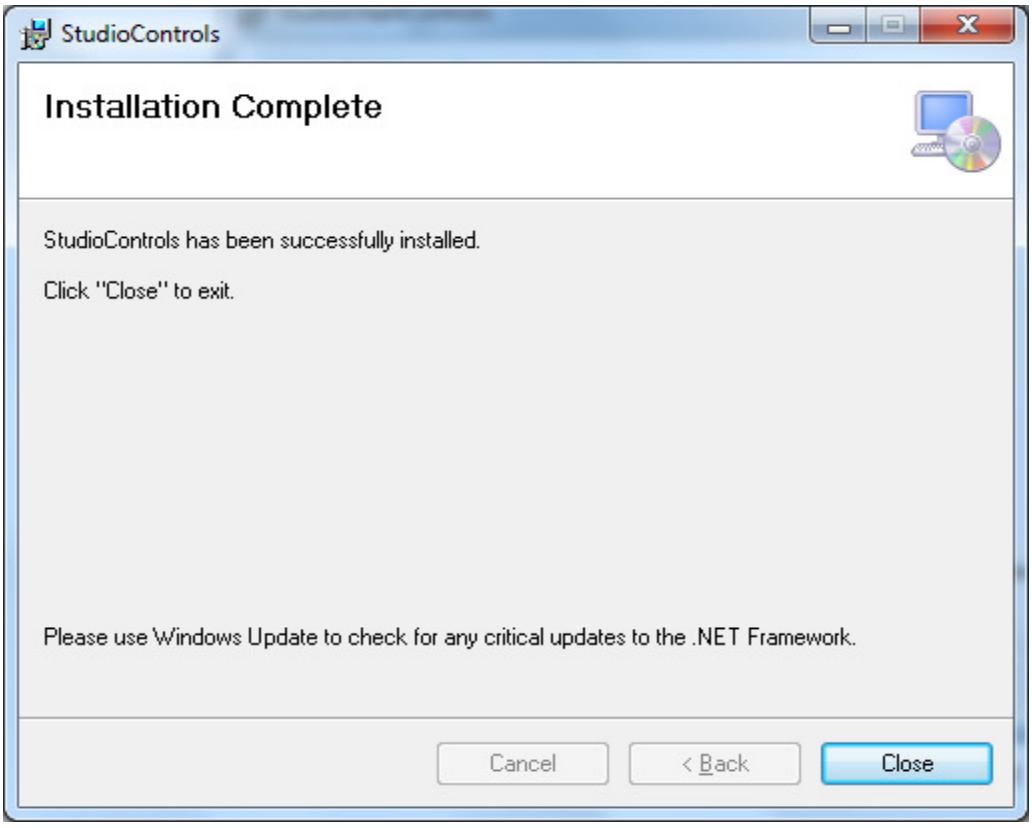


3- Select the Folder for the installation and click on Next, and then on Next again.





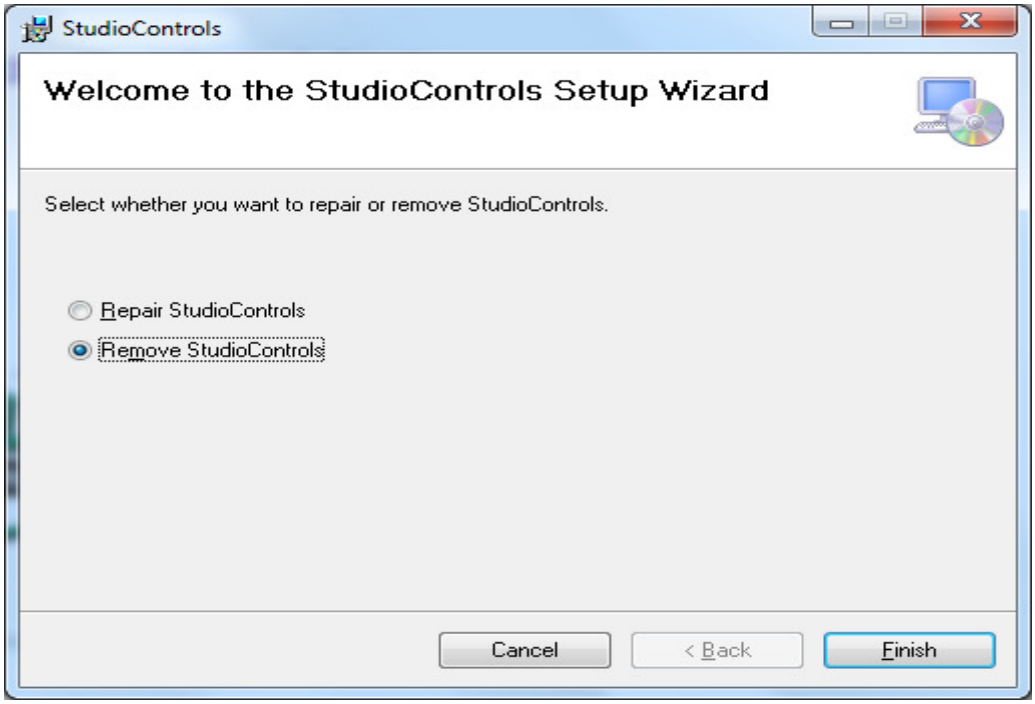
4- Wait until the Control Components are installed



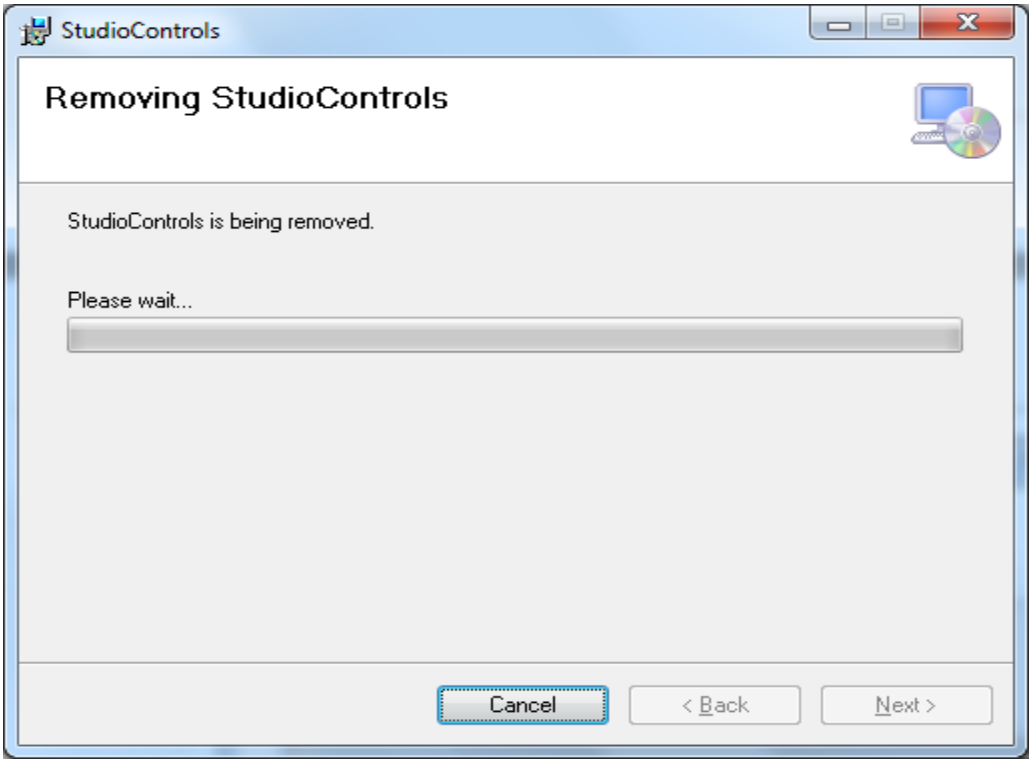
5- The Chart Components were installed; Click on Close to exit the Wizard. They user may need to re-open the application to start using it.

Uninstalling the Chart Components:

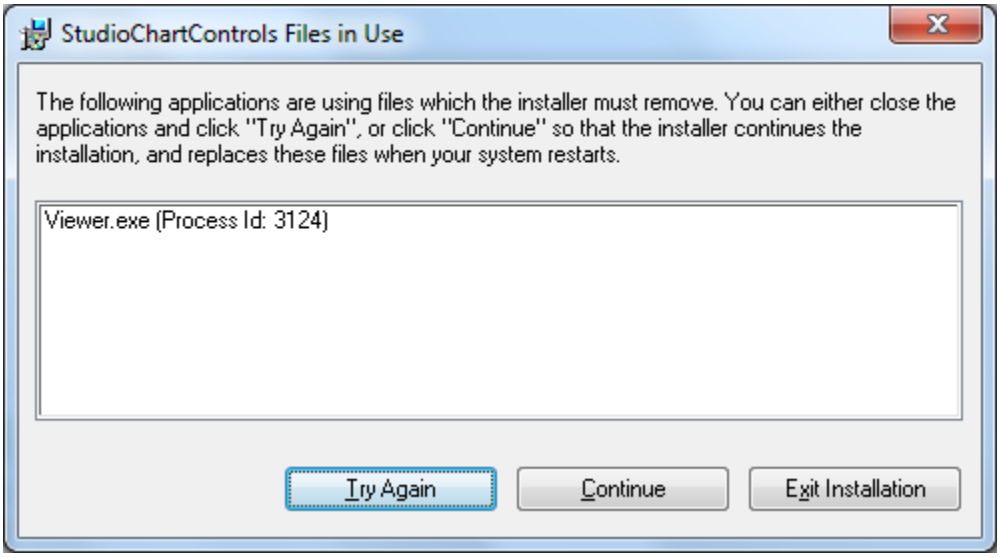
1- Open the Wizard, select Remove StudioControls and click on finish.



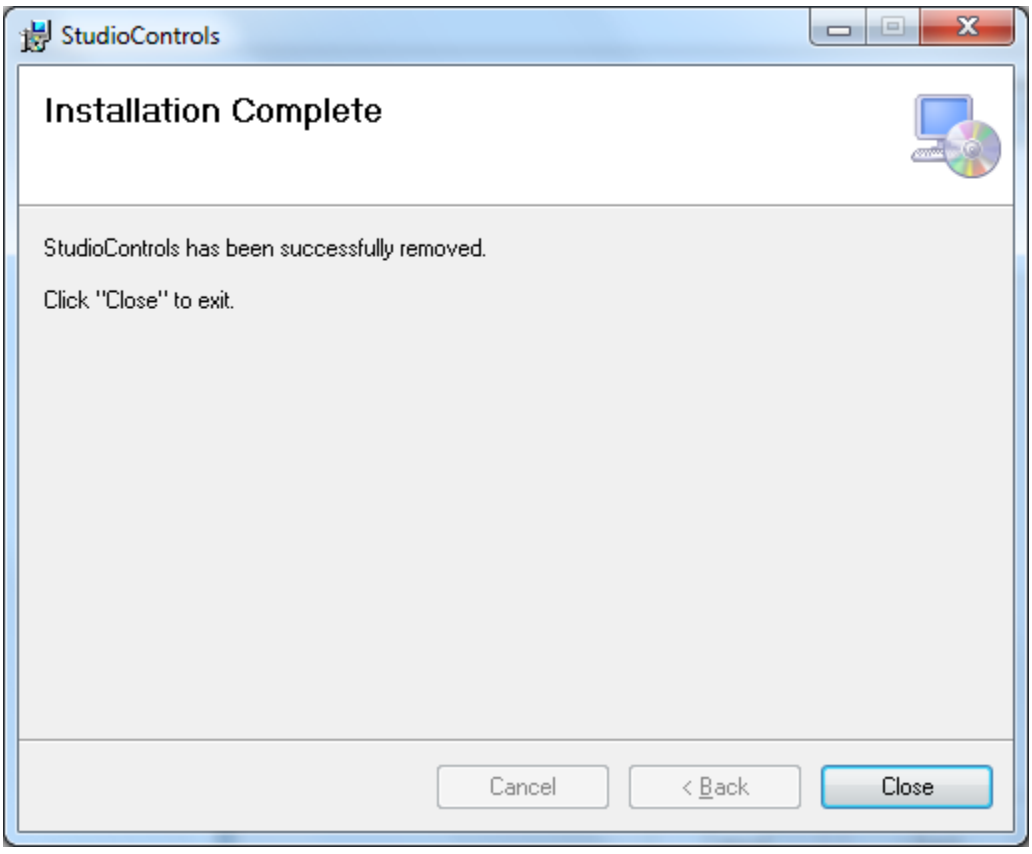
2- Wait while the StudioControls are removed.



3- If the following screen shows for the user, close the application and “Try Again” or click on “Continue” to uninstall the Control Components.



4- Click on continue to finish uninstalling the Control Components



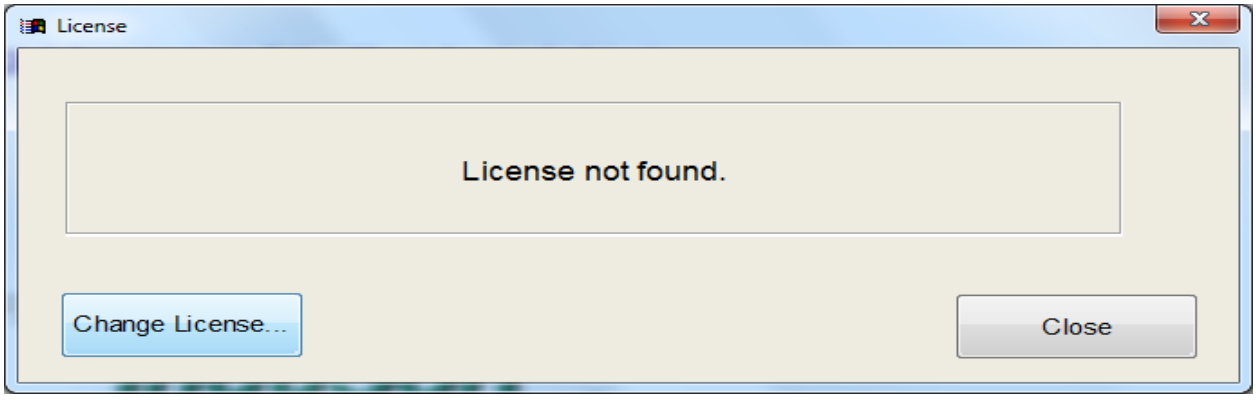
5- The Control Components were uninstalled; Click on Close to exit the Wizard. If the user opens the application again, it’s necessary to install the Control Components before using it.

Licensing the Application

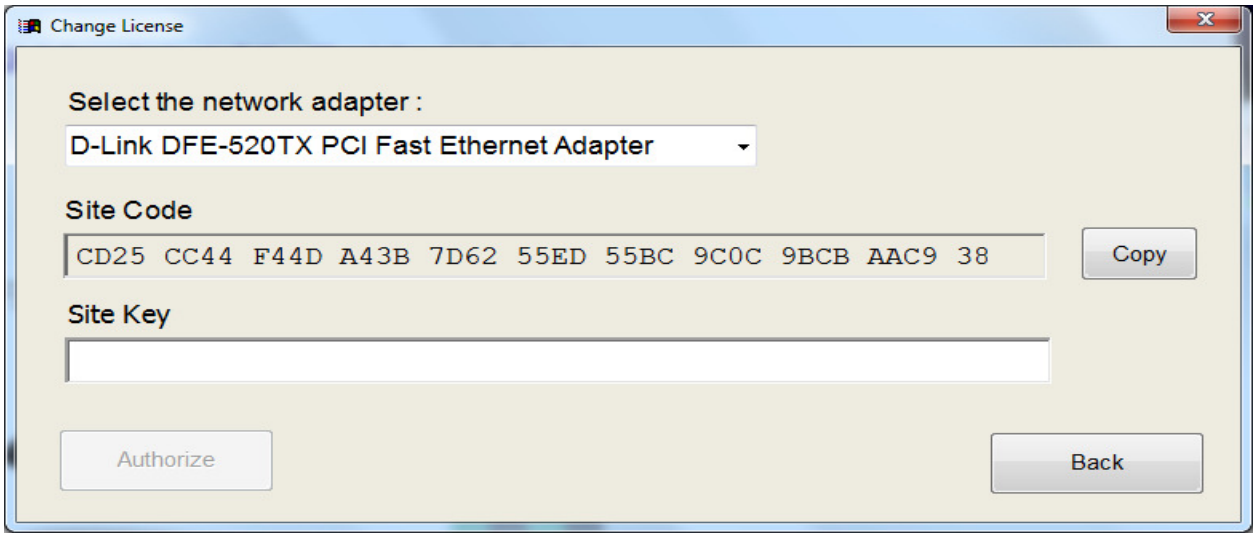
This section contains instructions on how to get a license for the Dashboard Template. These instructions have to be followed for the project to run.

1- Run the Dashboard application as Administrator, and click on the license button on the Header (you have to run it as Administrator to license the application).

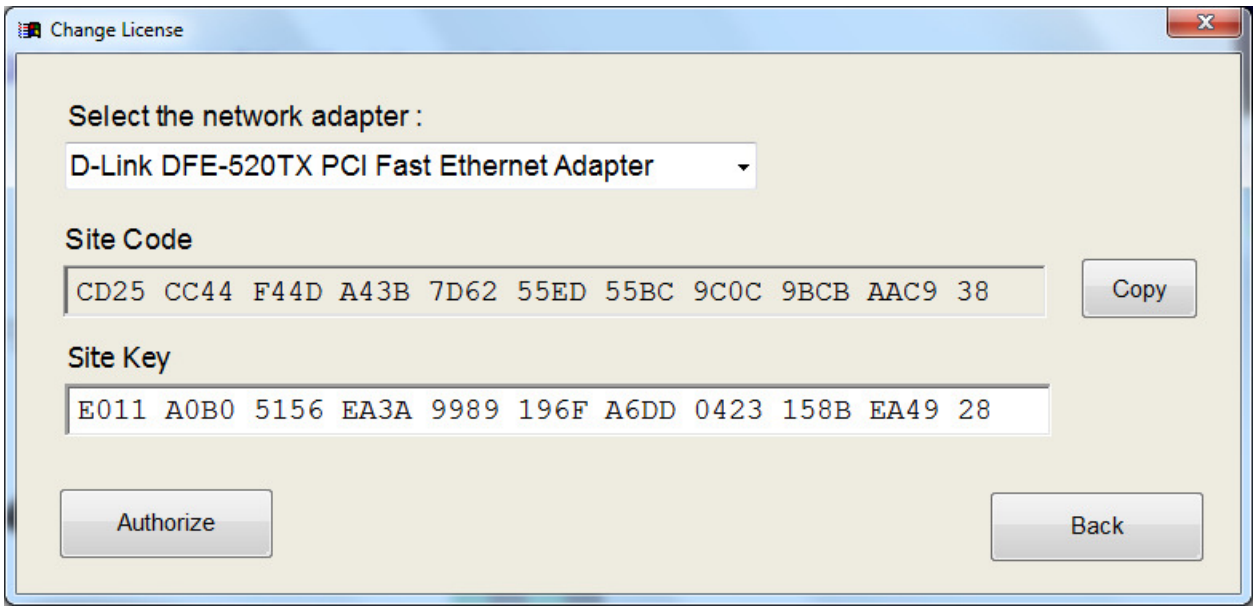
2- The following popup should open, if no license is found, click on Change License



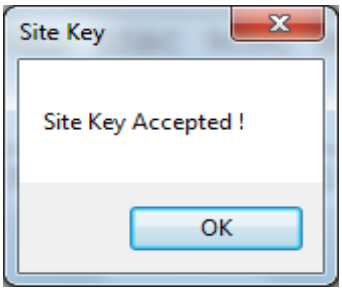
3- Copy the Site Code from the screen below. You have to send this Site Code for your software vendor, so a Site Key is generated and sent back to you.



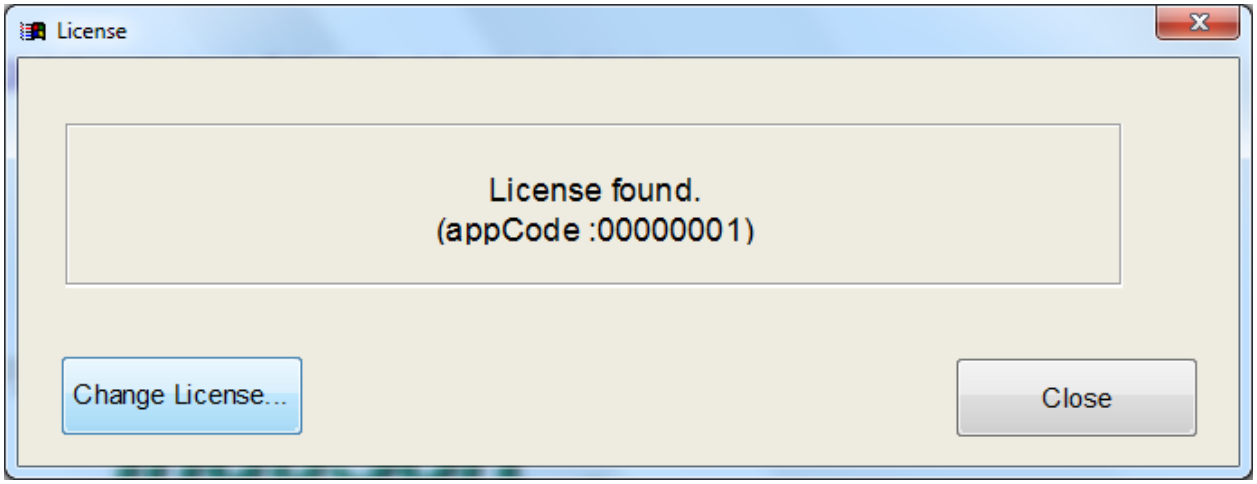
4- Once you receive a valid Site Key, paste it and click on Authorize.



5- You get a message asking if you're sure about changing your Site Key, click on yes and if it's a valid Site Key, you get the message below:



6- Now on the license screen you have a message that the application is licensed, and you now use it to create the Dashboards.



Important Notes:

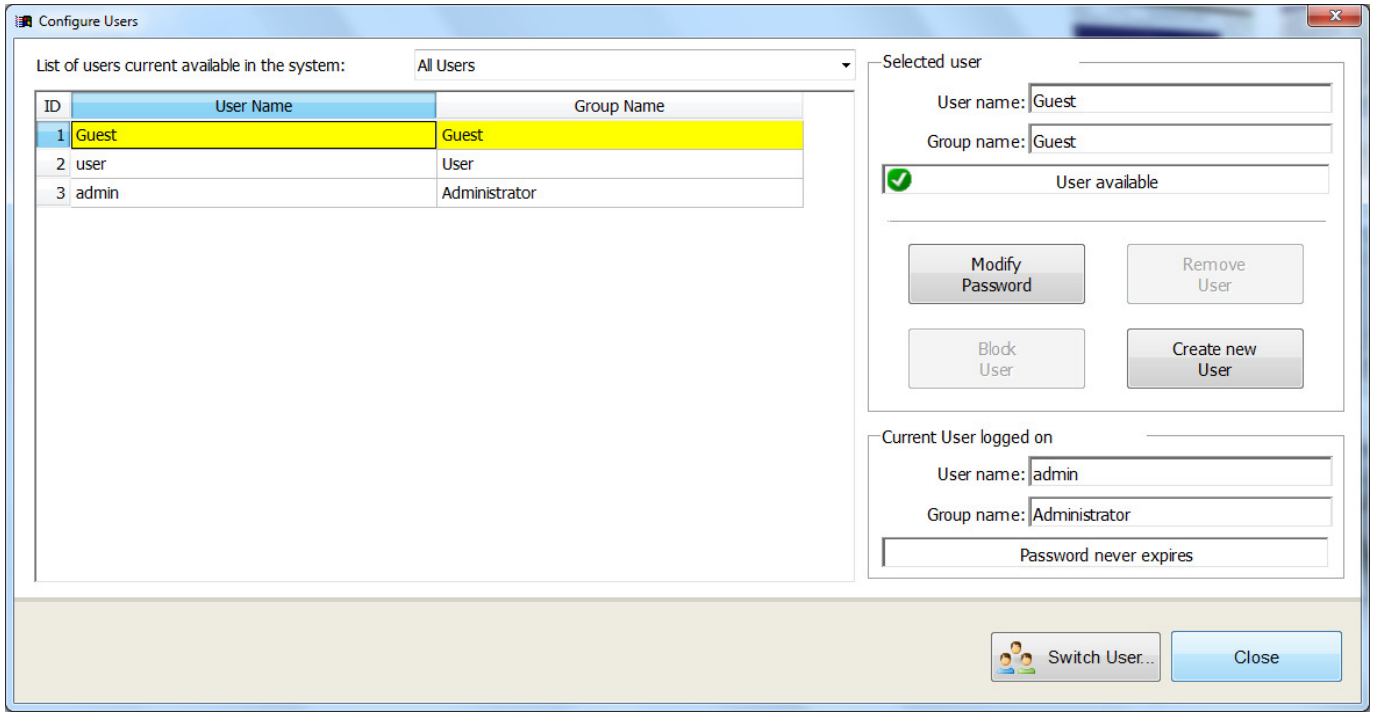
It's necessary to install the Chart Control objects from the Home Screen before licensing the application, or you can't get the Site Code.

Configure User Settings

This section describes the **Configure Users System**. To open the Configure Users Screen, click on the Configure Users button in the Header. If there's no user logged on the application, the button will show as Switch User, so you need to logon before configuring the users. The configure users screen is only available for users with the security system requirements.

Configure Users Screen

On this screen you can see a list with the users configured for the application, the user selected from the list, and the user logged on the application. You can see the status for the selected user, and when the password for the logged user expires.

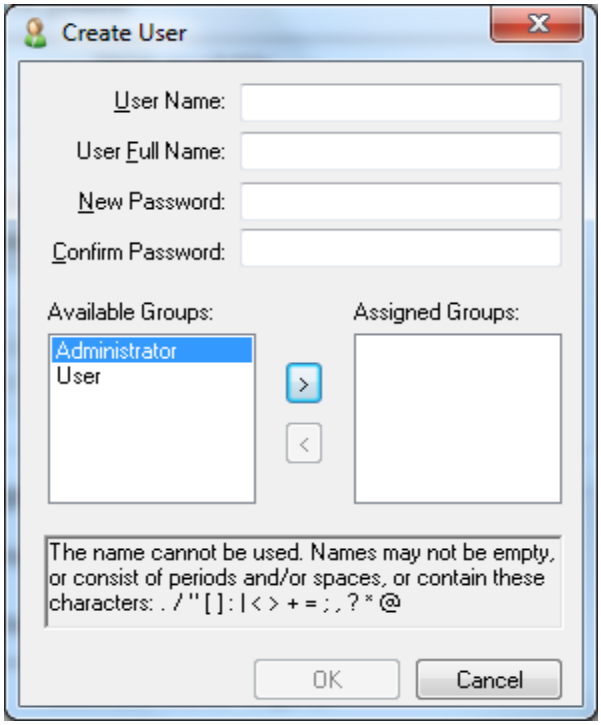


On the Configure User Screen, you can:

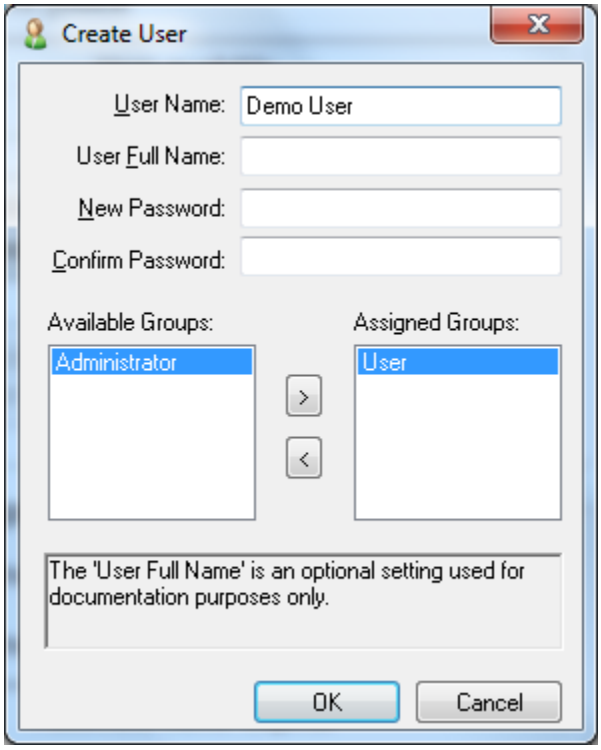
- Create a new User
- Modify Password
- Block User
- Remove User
- Switch User

Create New User

1- Click on the Create New User button to open the following screen:

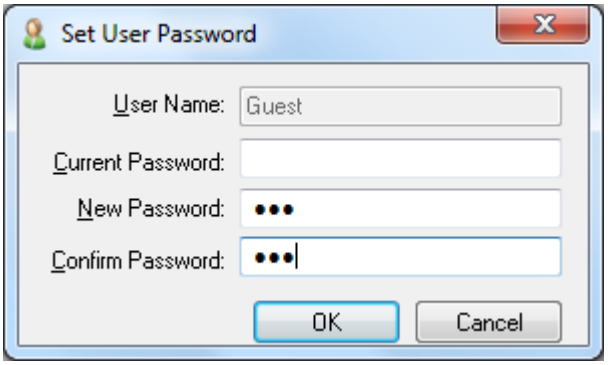


2- On this screen the user can input the new user settings, and select the group for the new user. After selecting the user name, password and group, click on the Ok button and the new user will be on the list.



Modify Password

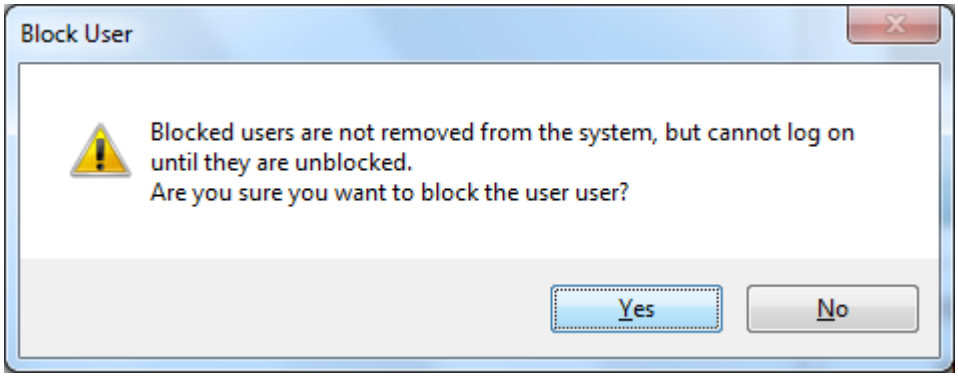
1- Click on the Modify Password button to open the following screen:



2- On this screen you can change the user password, give the current password and the new password, click on the Ok button and the password is changed.

Block User

1- Click on the Block/Unblock User button, and you'll see the following message:

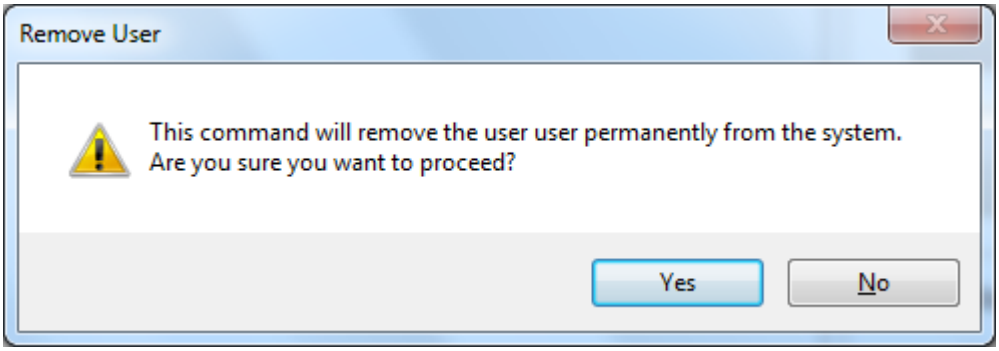


2- When a user is blocked, you'll see his status as:

3- If you block one user, it won't be able to log on the application, until it's unblocked.

Remover User

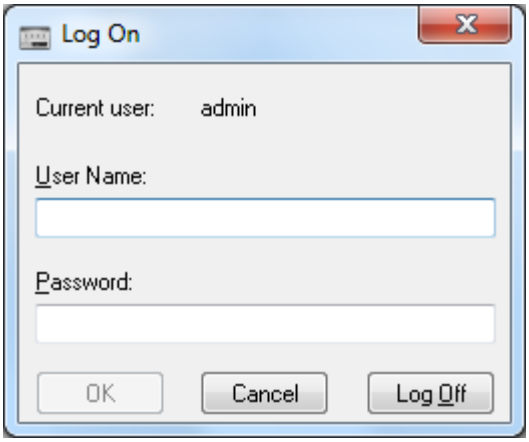
1- Click on the Remove user button, and you'll see a message asking if you're sure about this.



2- Click on Yes, and the selected user is removed from the application.

Switch User

1- Click on Switch User, and the Log On popup opens:



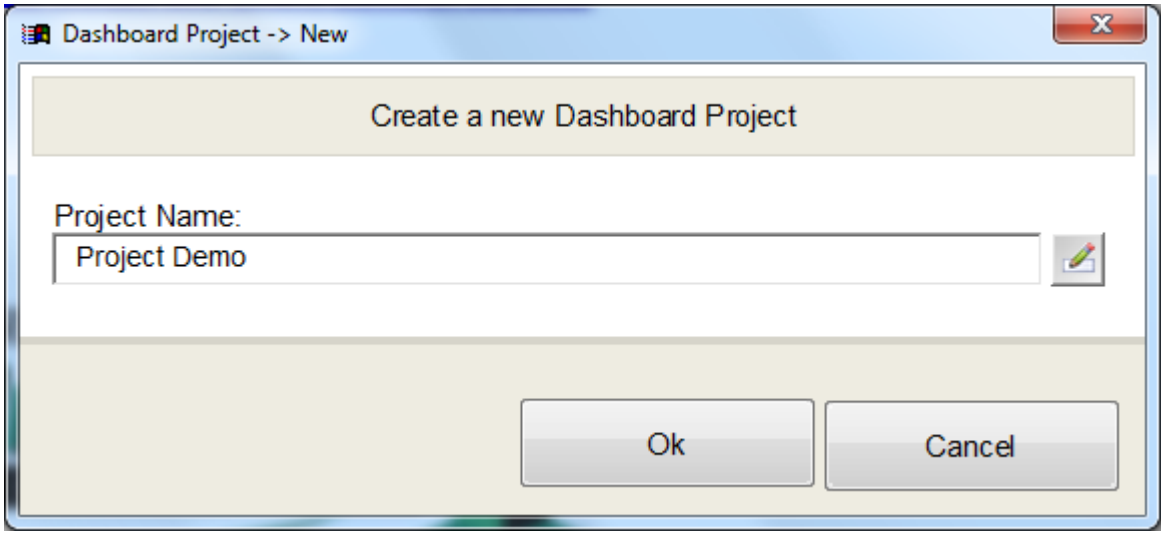
2- Use the Log On popup to change the user connected to the application or to Log Off the current user.

Creating and Configuring a Project

This section describes how the user can Create and configure one Dashboard project, with instructions on how to use the application to select the Data Source, create the Queries and Dashboards.

Creating a Project

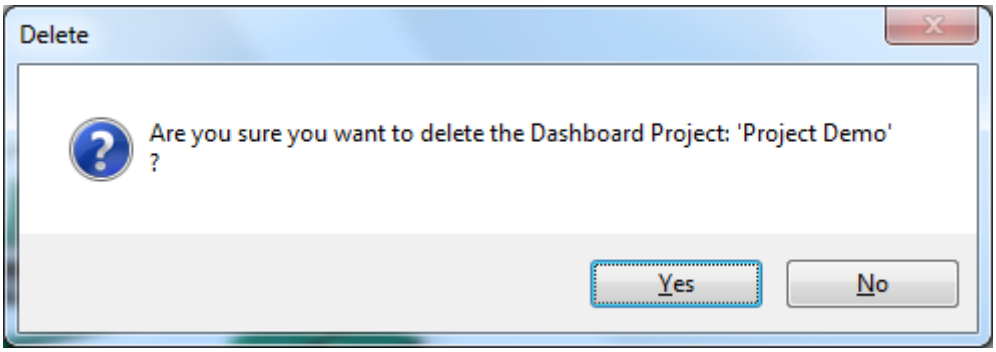
Select the current project on the Tree View and click on the new button to open the following popup:



The user can type the project name on the text box, or click on button on the right side of it, to open the Data entry popup. Type the New Project Name and click on the Ok button to create the project.

Remove Project

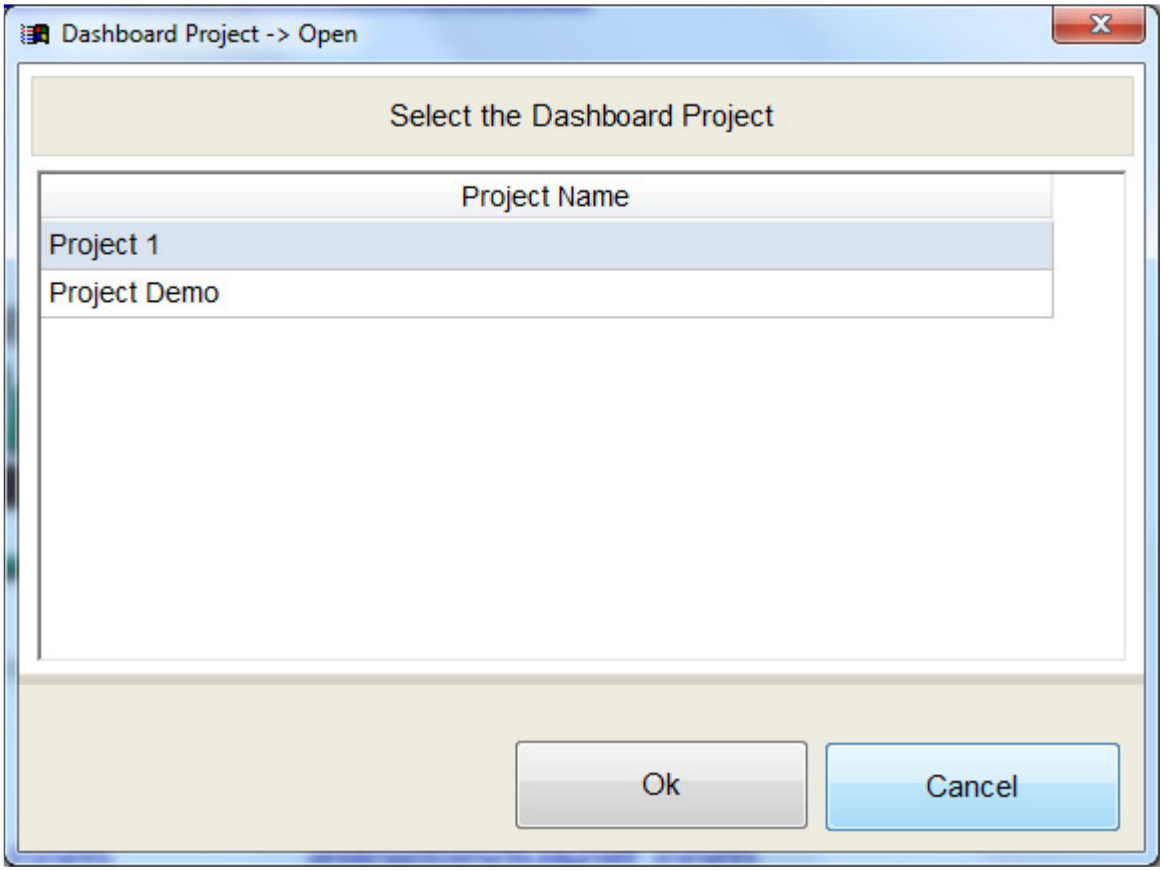
The user can click on the Remove Button on the Tree View to remove the selected project from the application. The user will receive a message to confirm if the project should be removed.



Open Project

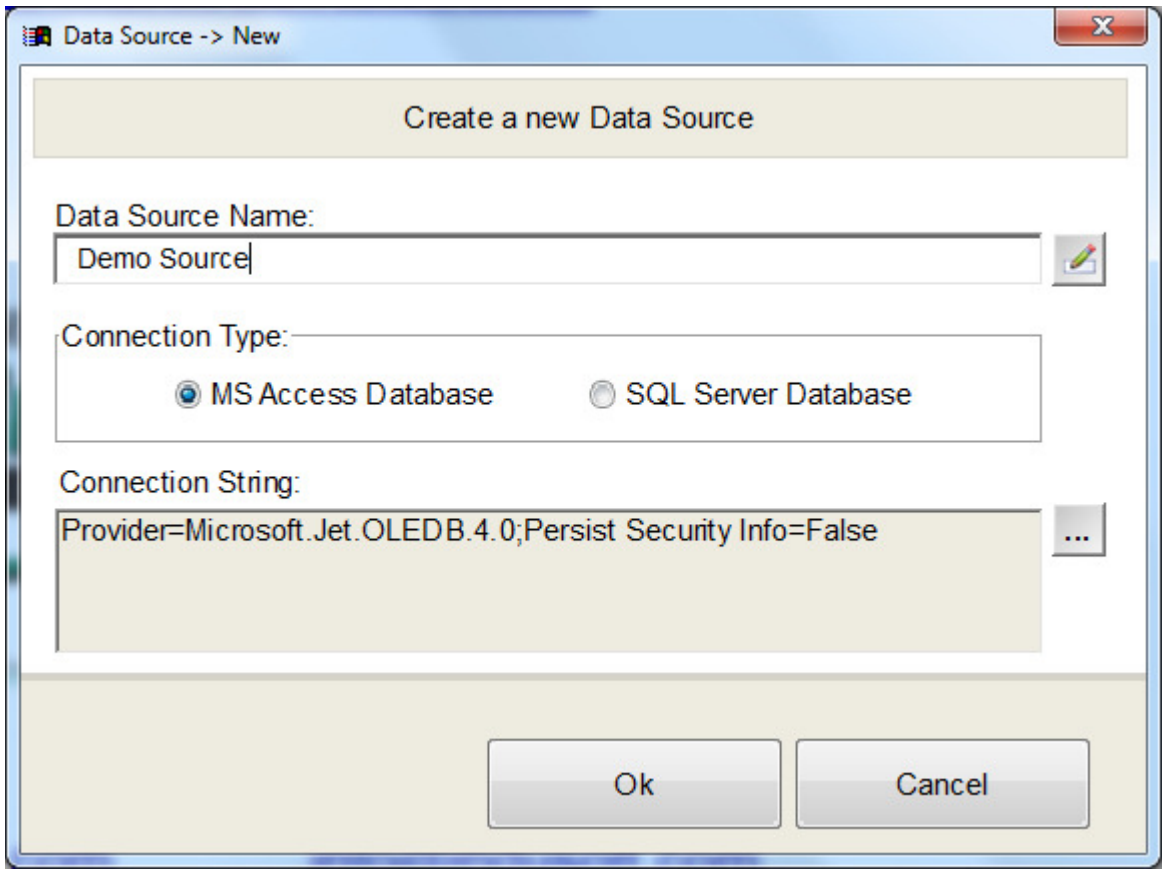
The user can open one existing project clicking on the Open button. A popup with the existing projects list will open, where the user can select one project to open.

Select the Project and click on Ok to open it and all its settings.



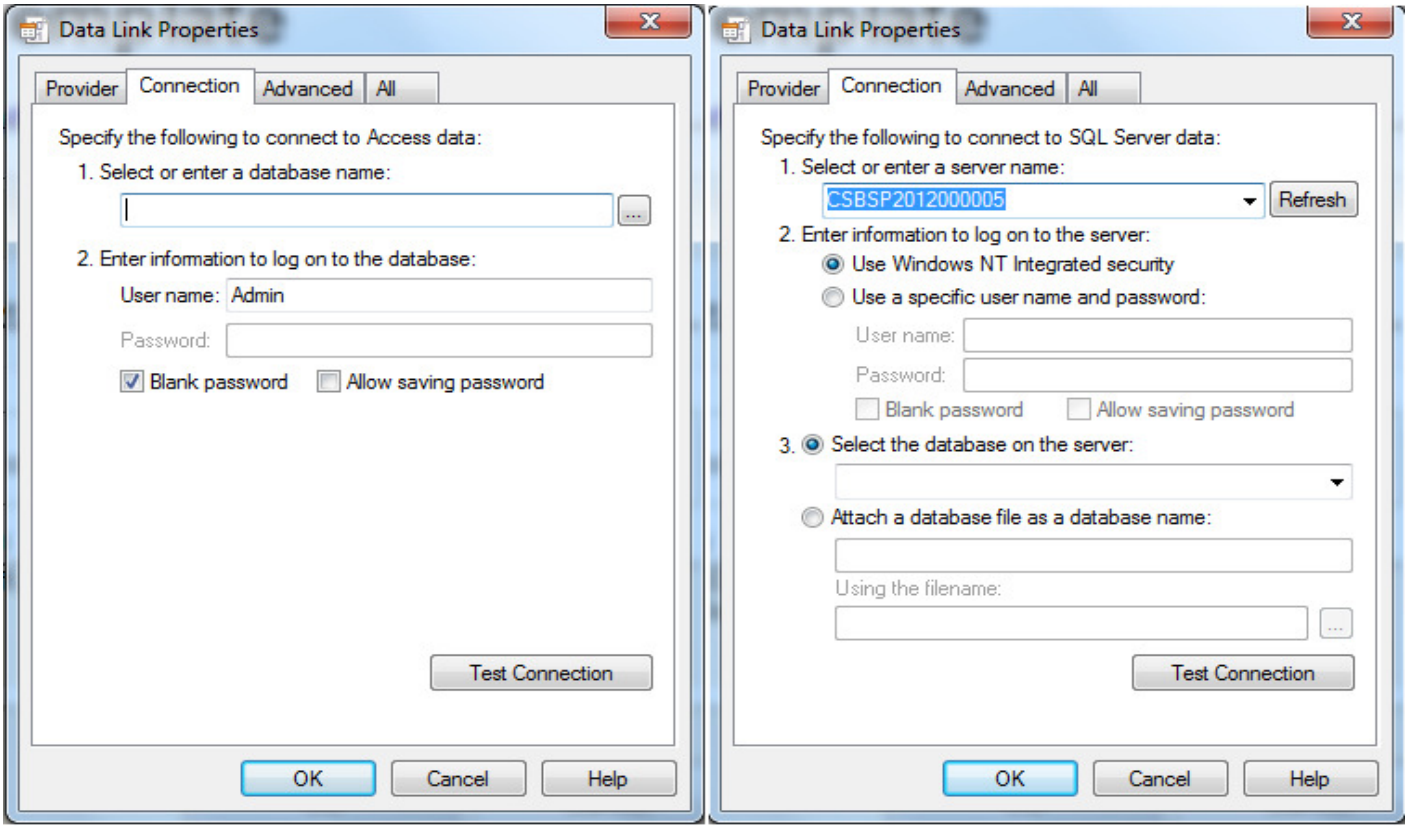
Create a new Datasource

After creating a project, the user can add one datasource to it, by clicking on Datasource, and then on the New button. The following popup opens, where the user can create the Connection String to the Database server.



The User can type the Data Source name, and select the connection type; the user can use a MS Access Database, or a SQL Server Database. After selecting the connection type, click on the ... button to open the connection string screen. On the Connection String screen, the user can select the Database for the data source, and give the password to connect this Database if there's one.

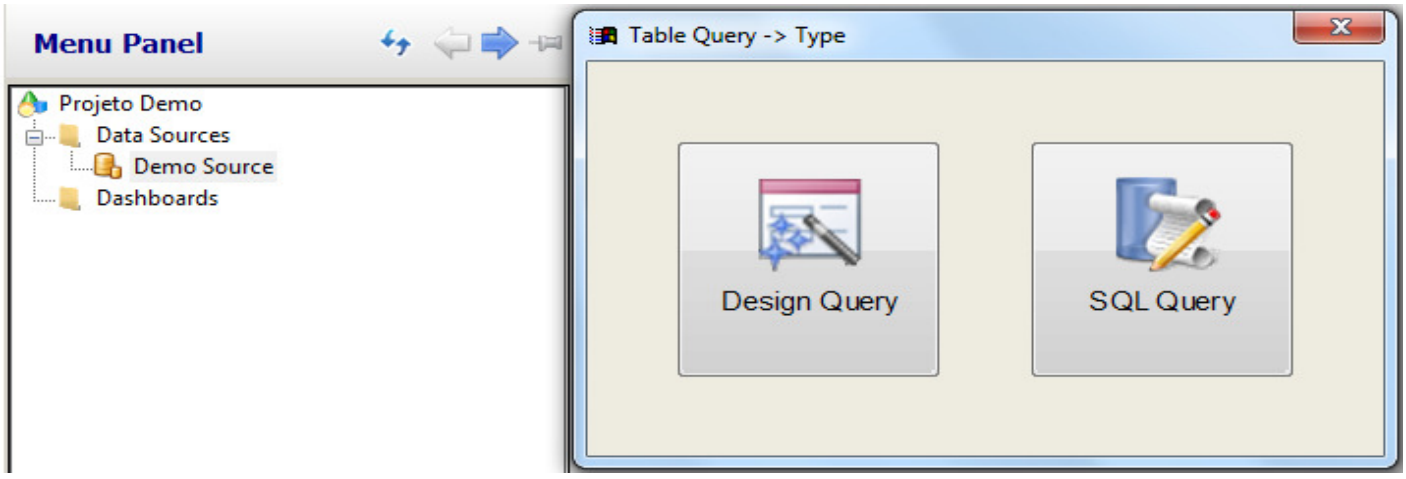
For this example we'll be using the MS Access Database type, with the DBDemo database on the application folder. The user can use the Test Connection button to test if the connection to the Database is working or not. If a data source is created with an invalid connection, you can see that there's a failed connection on the Status Bar and the Database Status screen of the application.



After creating a Data source, the user can select it and click on Edit to open the screen where he can change its name, connection type and connection string.

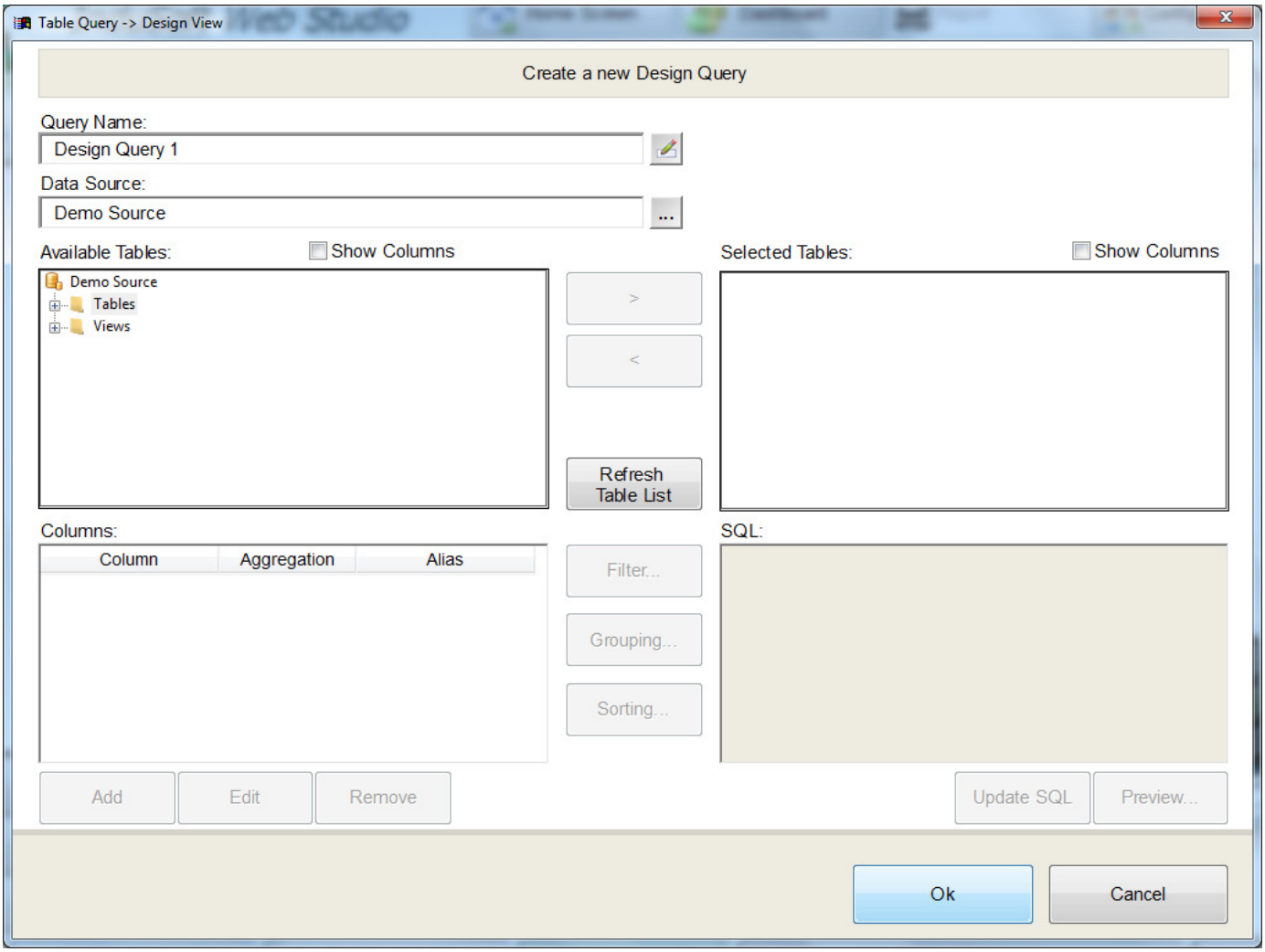
New Table Query

Select the data source created, and click on the New button at the tree view, a popup will open where you can select the type of the Table Query you want to create. The user can select between the Design Mode, a screen where he can select the settings for the Query he wants, or the SQL Mode, a screen where the user can input the SQL Query he wants manually.



Design Mode

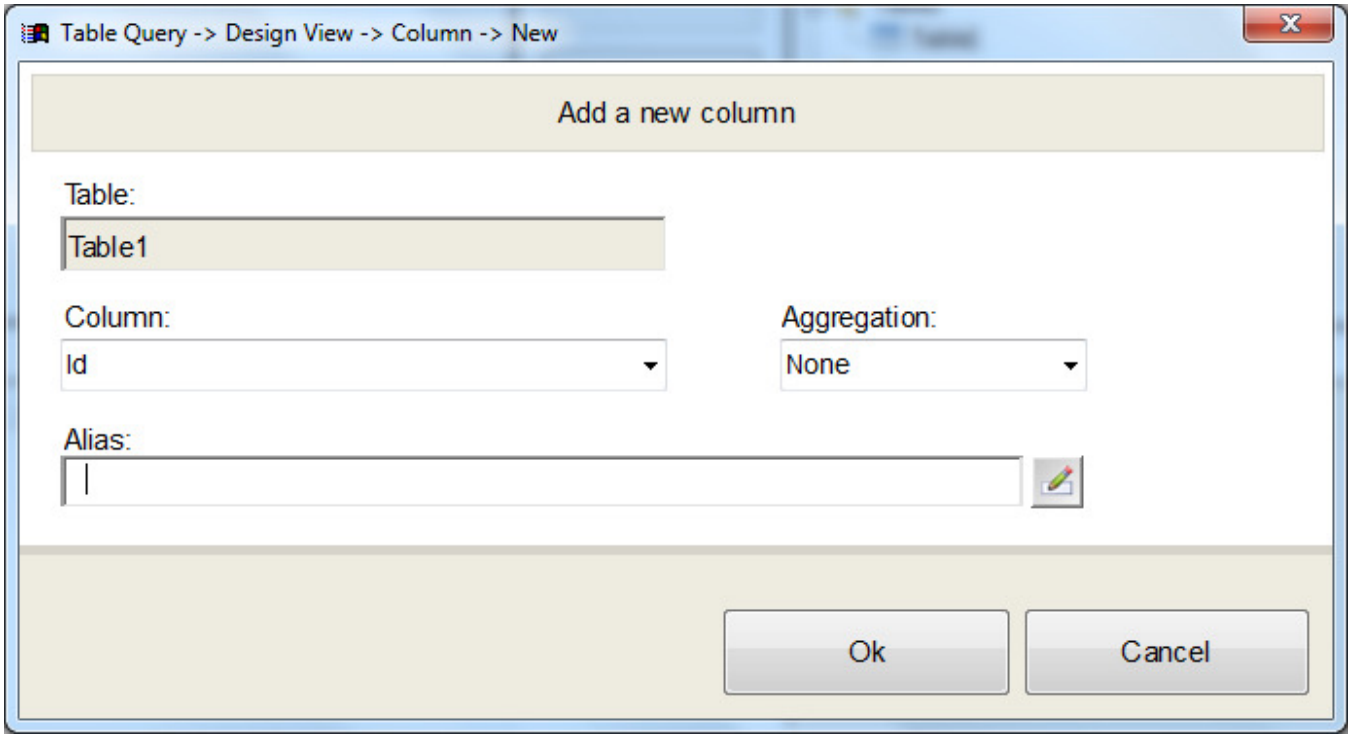
On the Design Mode the user can interact with the screen to create a Query from a table. Select one table from the Available Tables list, and click on the “>” button to add the table to the list for the query. The user can click on the Refresh Table List button to refresh the list of Tables from the Data source.



Add Column

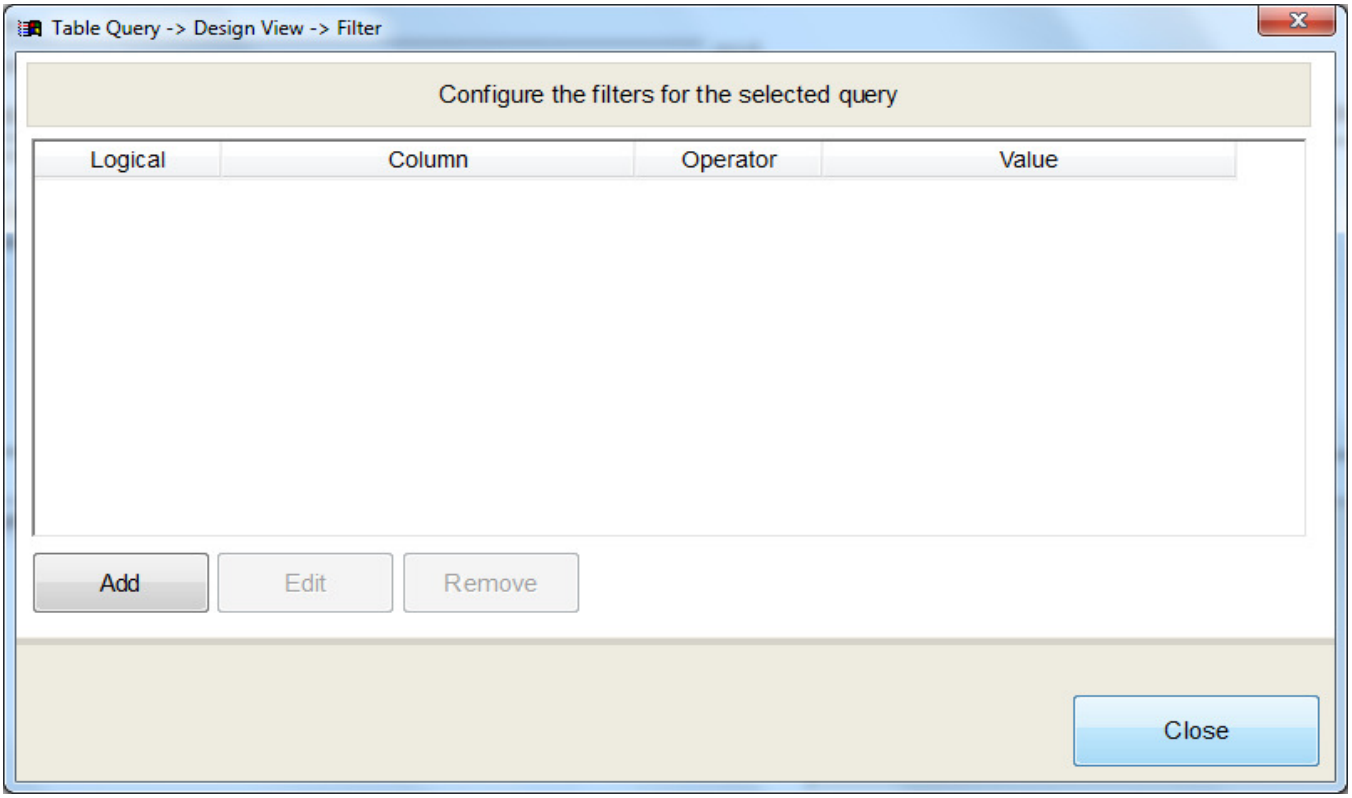
Click on the Add button from the Design screen to open a popup where the user can select the column he wants to show in the Query. If no column is selected, the query selects all the columns from the table.

On the Add Column popup, the user can select the column he wants to show, an aggregation for it (for example, the Sum or Avg SQL functions) and put and Alias for the column selected.

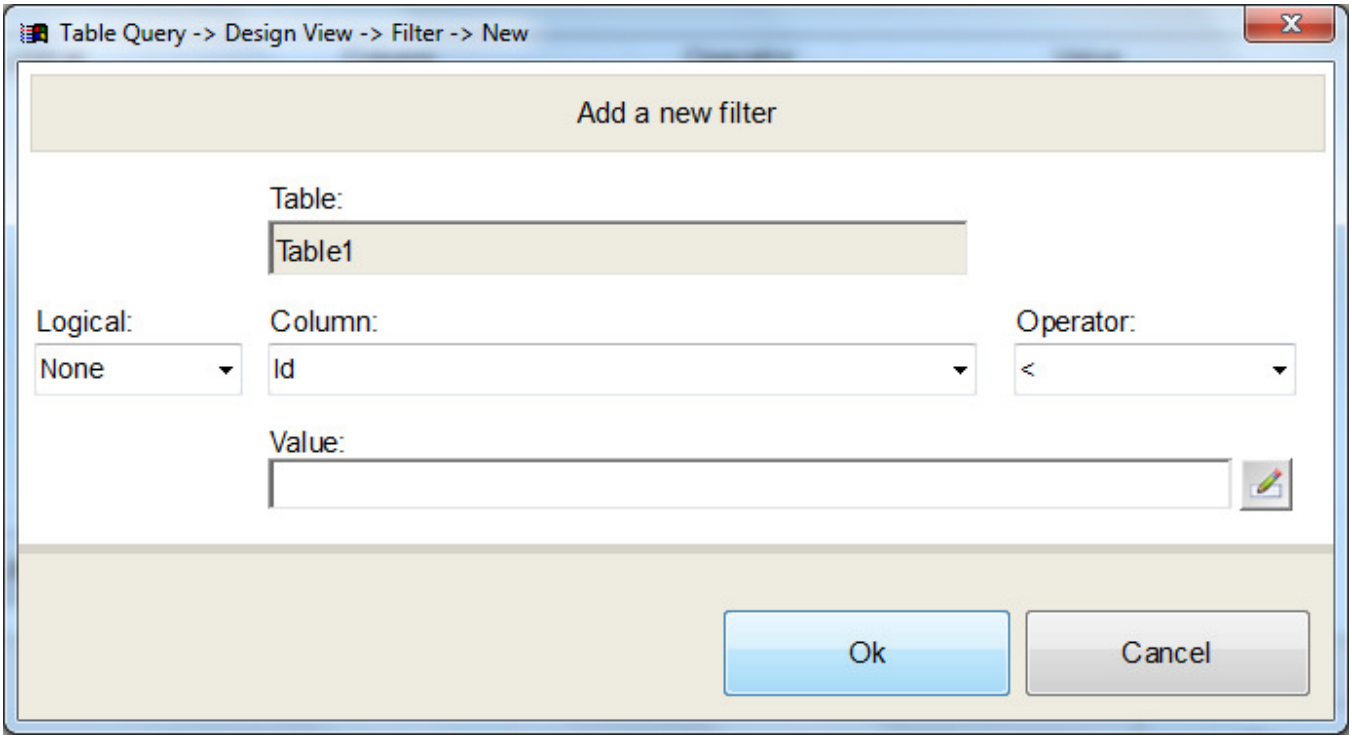


Add Filter to SQL Query

The user can add a filter to the SQL query by clicking on the Filter button. The following screen opens:



Click on the add button to open the popup where you can select the settings for the filter.

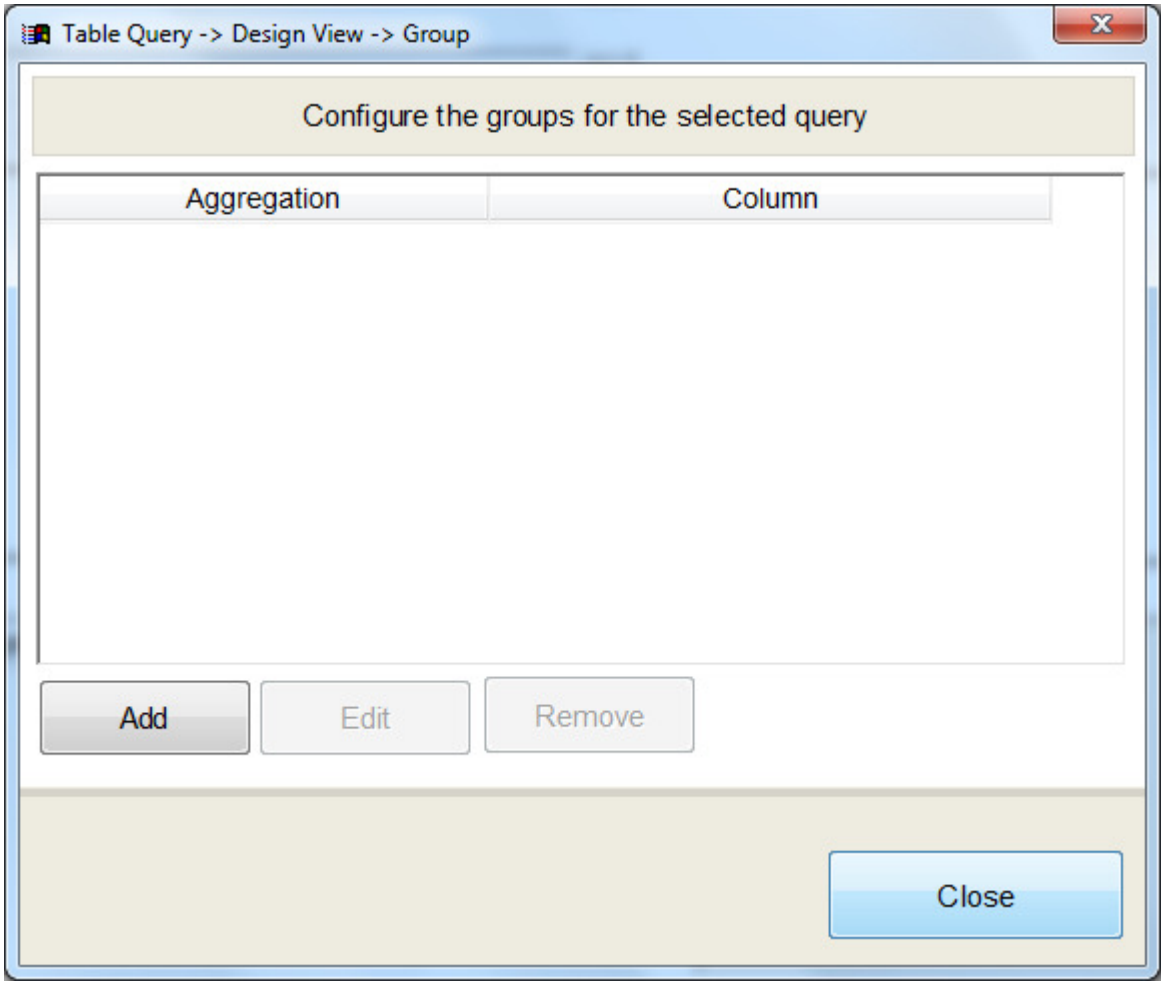


Select the settings for the filter and click on the Ok button to add it to the SQL Query (for example, you want to filter the Query by the ID Column, where values are ">"then 5, select the Operator ">" the Column ID and put the value you want in the text box to add these settings to the filter). The Value text box can't be blank, and for the first Filter for the Query the logical type should be 'None'.

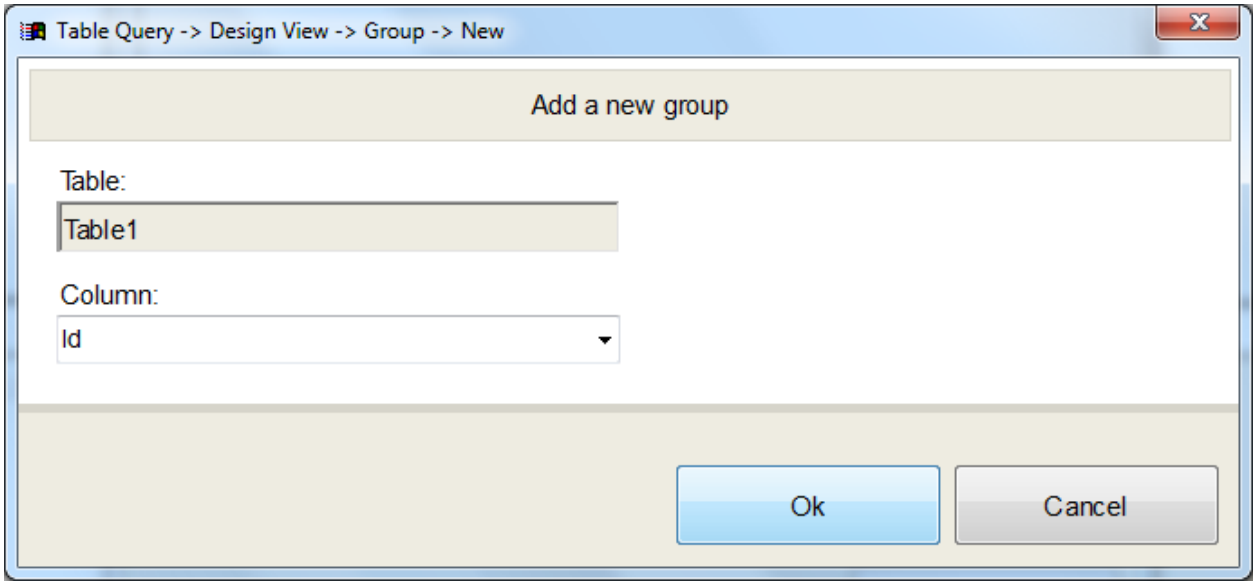
You can click on the Edit button to change the settings of the filter, or on the remove button to delete the selected filter from the SQL Query.

Add group to SQL Query

The user can group the SQL Query by clicking on the Grouping button. The following screen opens, where the user can Add, edit, or remove the Group from the SQL Query. Click on the Add button to open the popup where the user can select the Column to Group by. To Group the Query by a column, the user should have used an aggregation on one of the selected columns, or the SQL query won't work



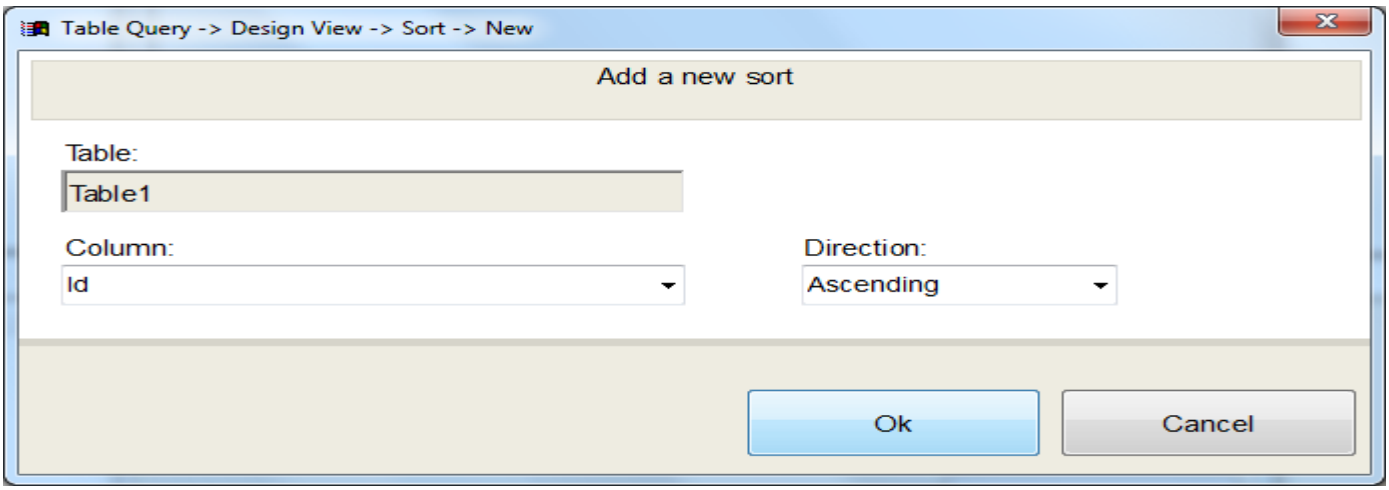
On this popup the user can select the column to be grouped.



Add Sort to SQL Query

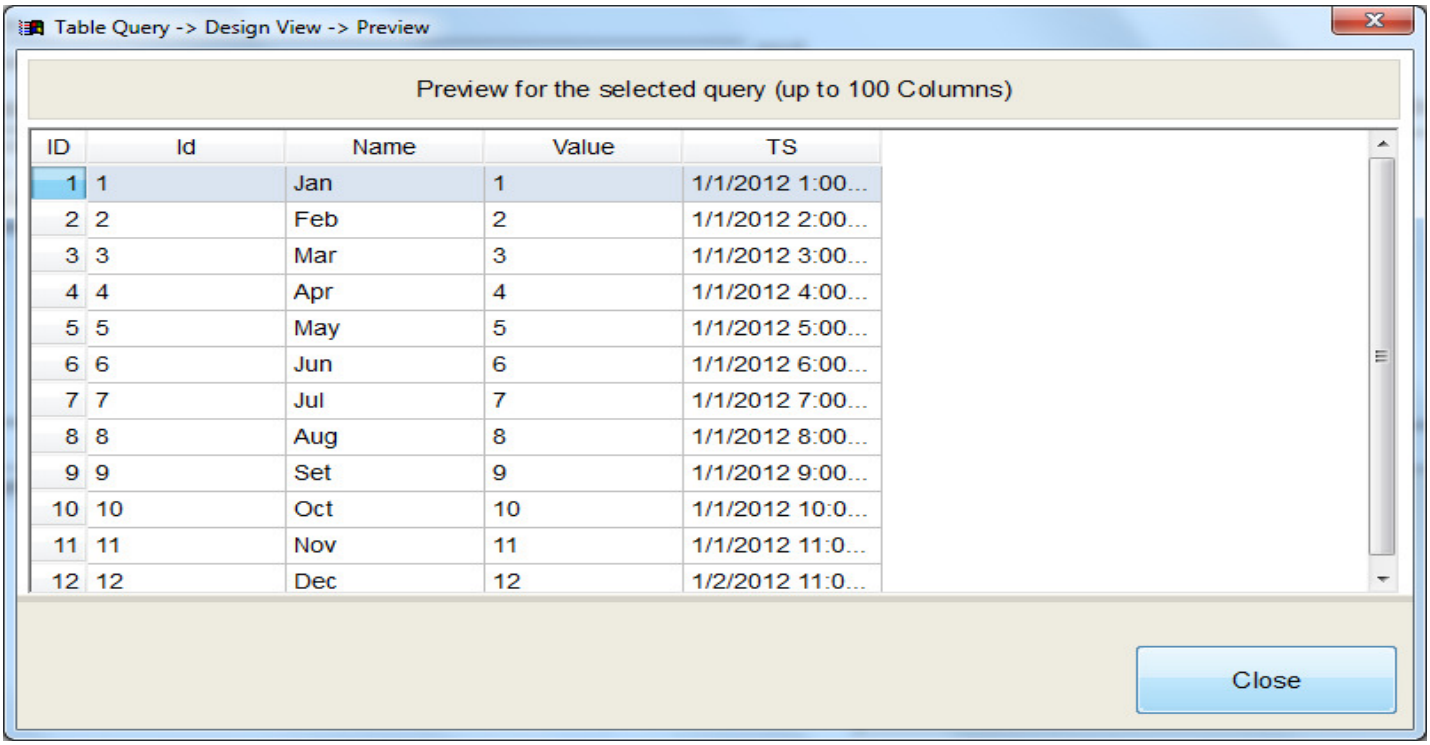
The user can click on the Sorting button to add a sort to the SQL Query to order it. The order can be Ascending or Descending, for the column configured on the sort screen. Click on the Add button on the Sort Screen to open the popup where the user can select the column that will be used to order the Query.

Select for example the ID Column with an Ascending orientation to order the query by the ID values, from the lower to the highest value.



Preview Query

The user can click on the Preview button at the Design View Screen to see a table with the preview for the selected Query.



ID	Id	Name	Value	TS
1	1	Jan	1	1/1/2012 1:00...
2	2	Feb	2	1/1/2012 2:00...
3	3	Mar	3	1/1/2012 3:00...
4	4	Apr	4	1/1/2012 4:00...
5	5	May	5	1/1/2012 5:00...
6	6	Jun	6	1/1/2012 6:00...
7	7	Jul	7	1/1/2012 7:00...
8	8	Aug	8	1/1/2012 8:00...
9	9	Set	9	1/1/2012 9:00...
10	10	Oct	10	1/1/2012 10:0...
11	11	Nov	11	1/1/2012 11:0...
12	12	Dec	12	1/2/2012 11:0...

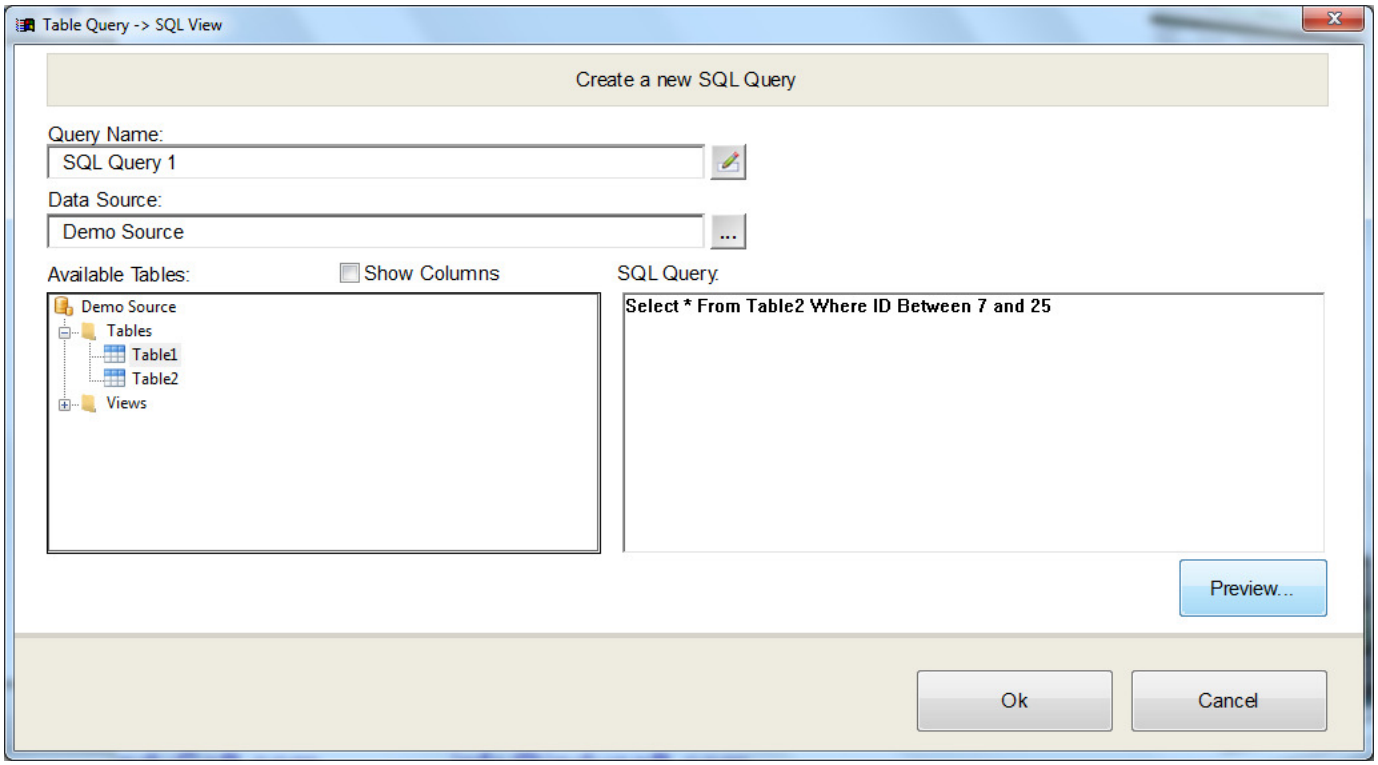
If the query created is not working the user will see and empty screen and can find the error message at the Output Window on InduSoft, or receive an error message from the application.

Update SQL

The user can click on the Update SQL button to refresh the SQL Query, if any change made doesn't show on the screen.

SQL Mode

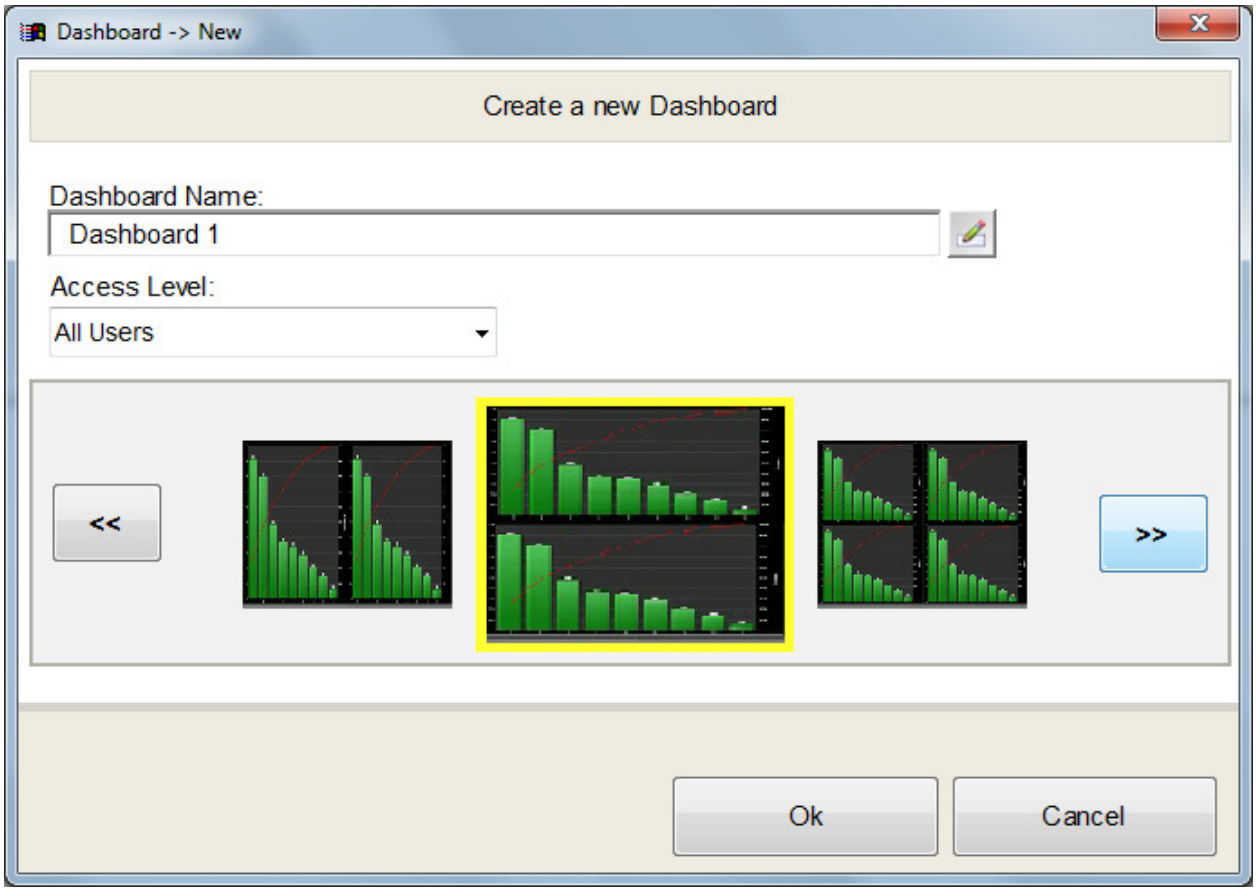
On the SQL Mode the user can input the SQL Query manually on the text box. Check the Show Columns box to show the columns from the tables. After creating the SQL Query you want, the user can click on the Preview button to see the result from the Query.



Note: The Application adds the Top 32000 clause to all the Queries, so the user can't use the Top clause for his queries. The maximum number of rows that the user can see is 32000.

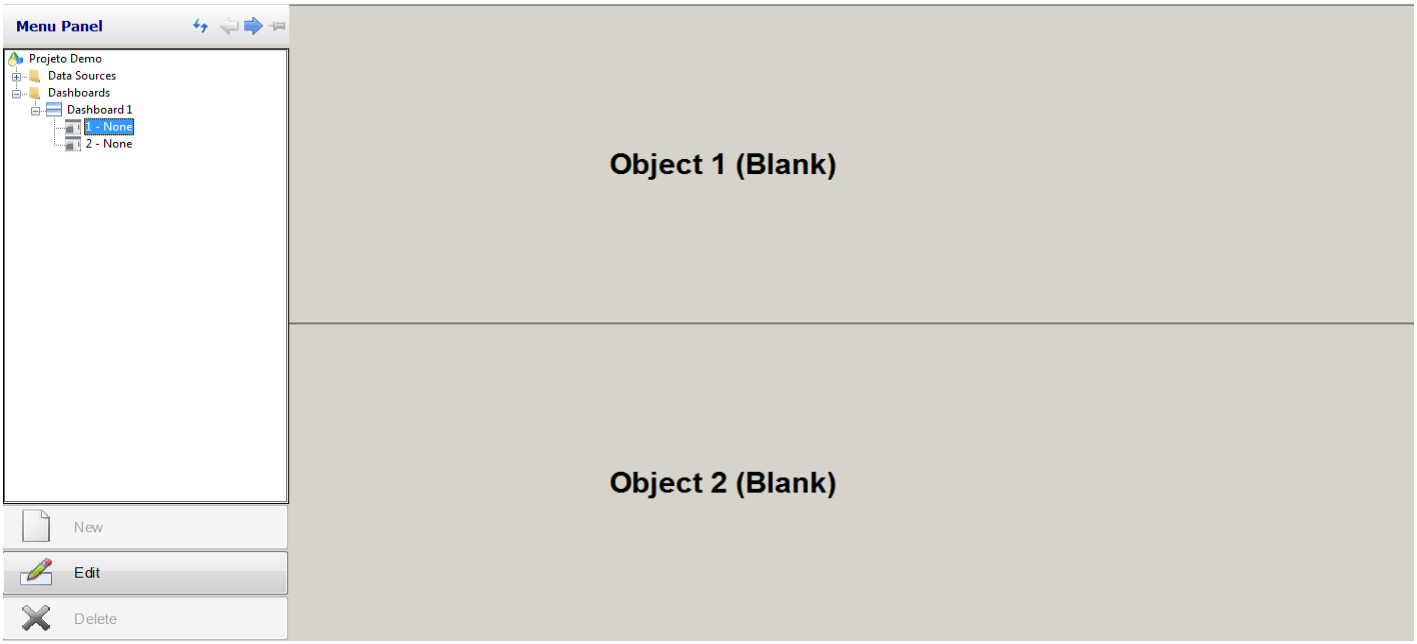
Create a new Dashboard

After creating the Data source and the Queries for it, the user can create a Dashboard for those queries. Click on Dashboard at the Tree View, and on the New button to open the following screen:

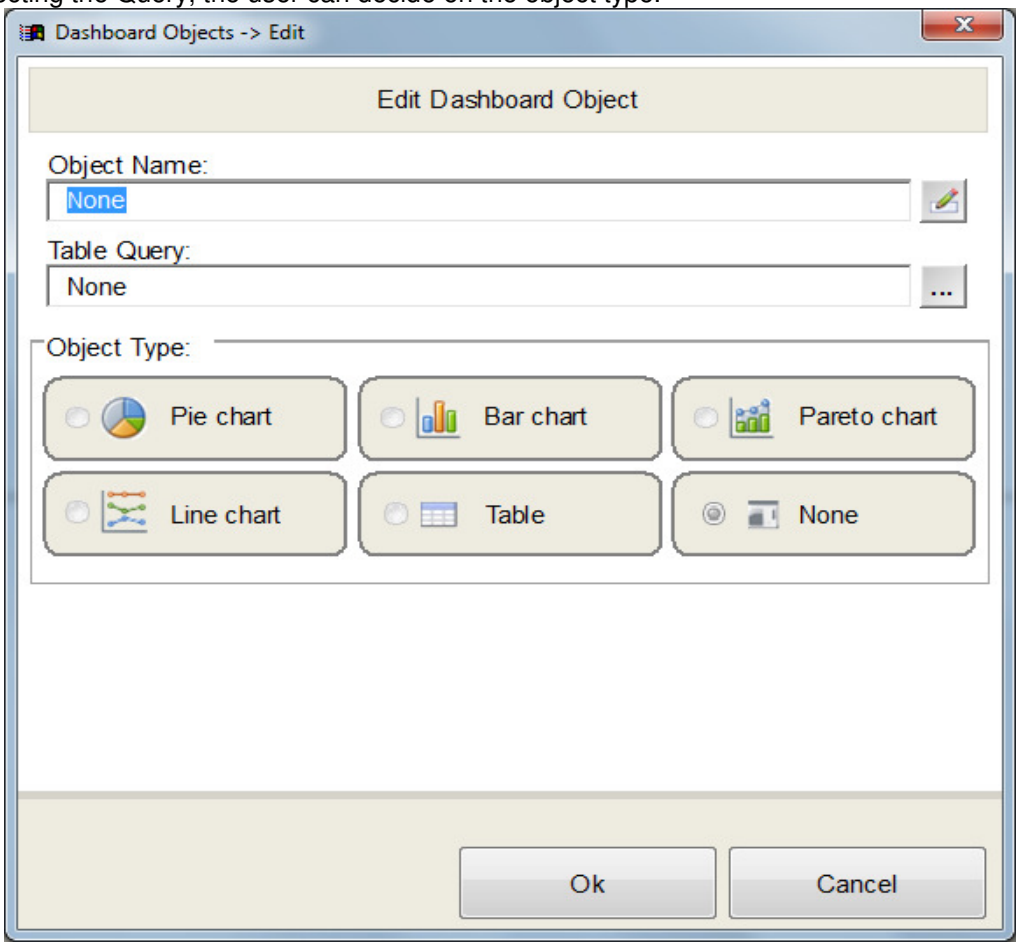


On this screen the user can select the Dashboard Name and the access level for it (if all users can see this dashboard or only the user that created it) and the number of objects and the way they're distributed on the screen. The dashboard can have up to 4 objects, click on the ">>" or "<<" buttons to change the selected style for the Dashboard. After selecting the settings you want for the dashboard, click on the Ok button to create it, and it'll show on the Tree View. And Open the Dashboard Screen for the created Dashboard.

After creating a new Dashboard the user can add the objects to it. Click on the object at the screen (if there's no object configured for it) or click on the object at the tree view and then click on the Edit button.



Clicking on the Edit button opens the Edit Objects screen where the user can select the Name and Query for this object. After selecting the Query, the user can decide on the object type.

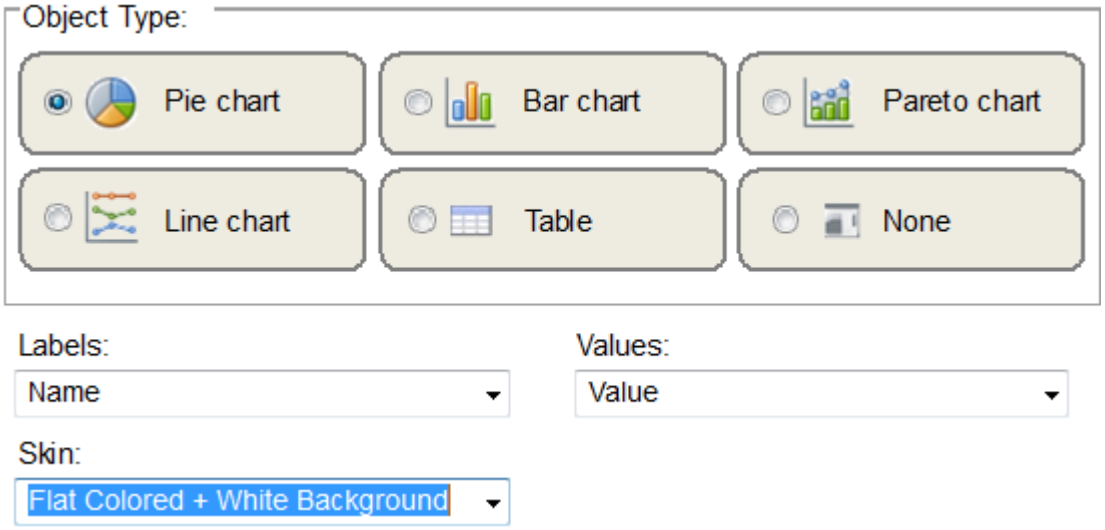


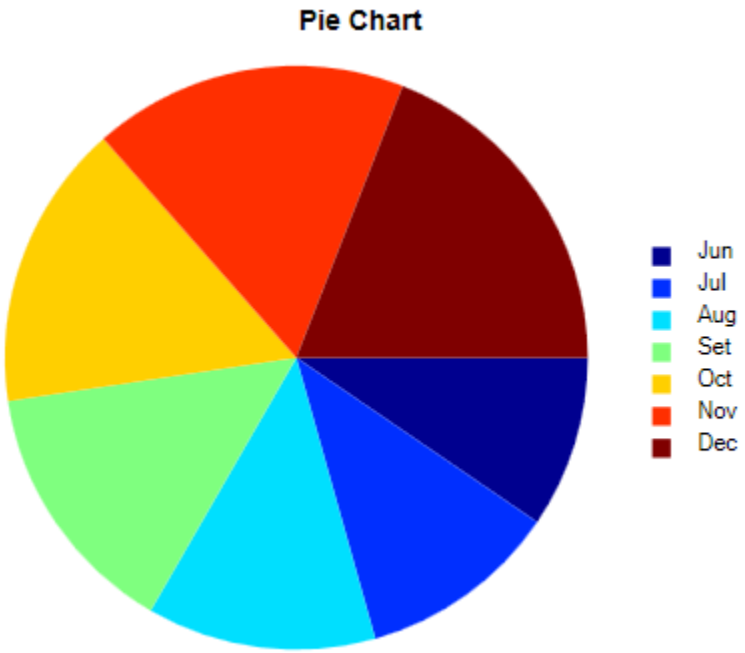
Select one of the Table Queries created on the Datasources to create an object.

Object Types

Pie Chart

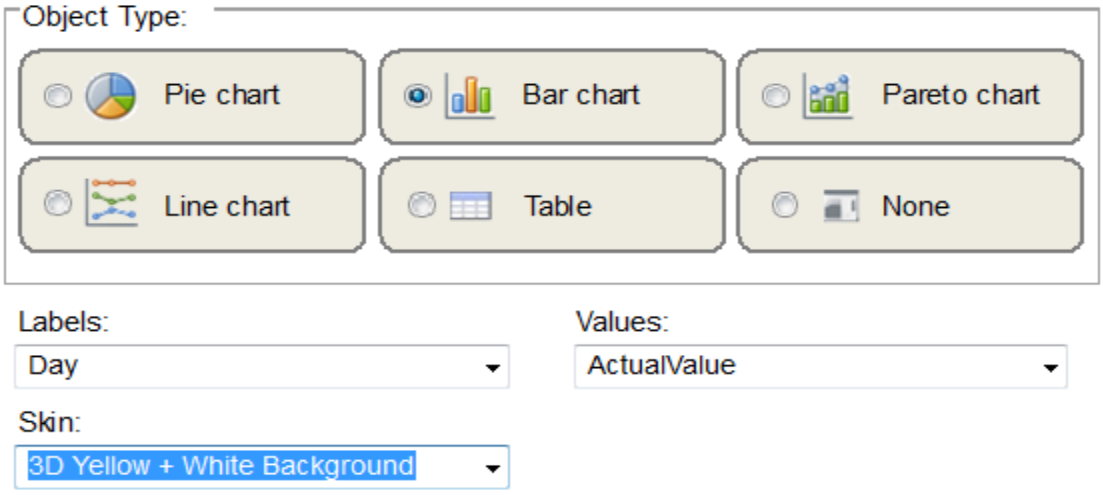
Select the Pie Chart object to create a Pie Chart for the selected Query. The user can decide on the Column for the Labels/Values for the chart and the Pie Chart Skin.

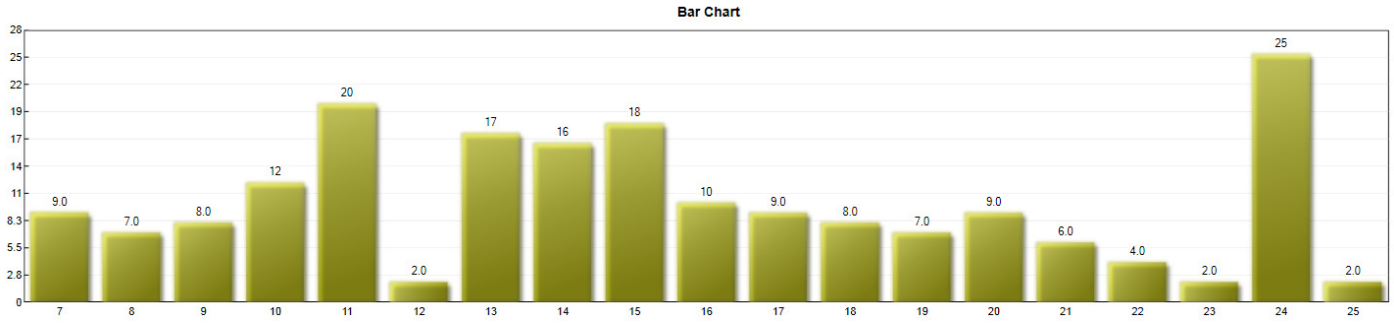




Bar Chart

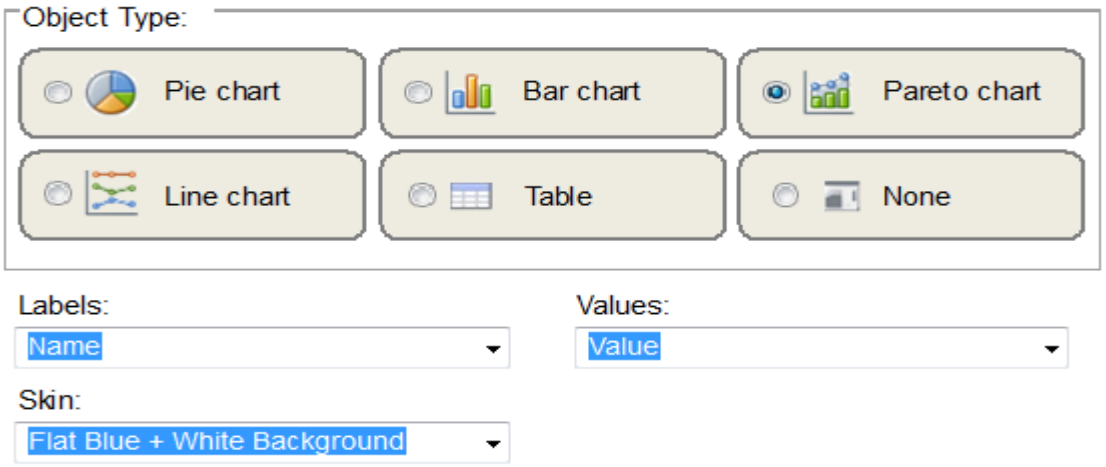
Select the Bar Chart object to create a Bar Chart for the selected Query. The user can decide on the Column for the Labels/Values for the chart and the Bar Chart Skin.

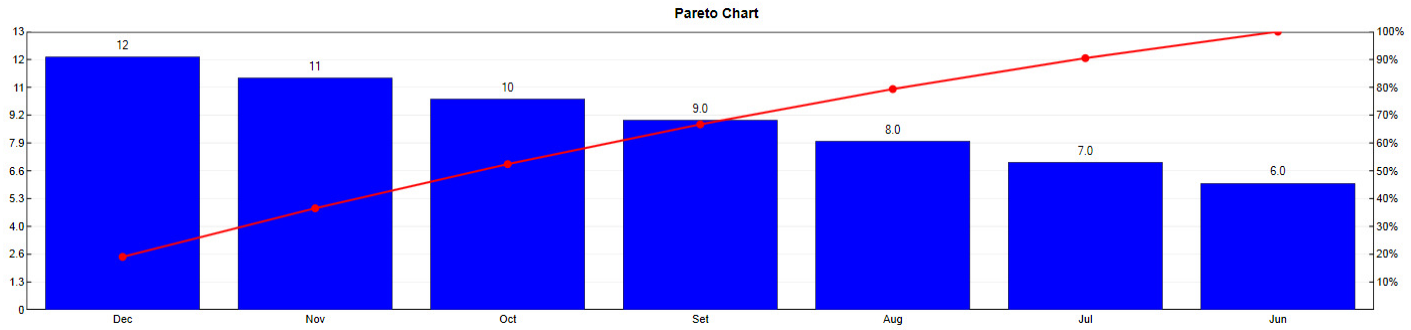




Pareto Chart

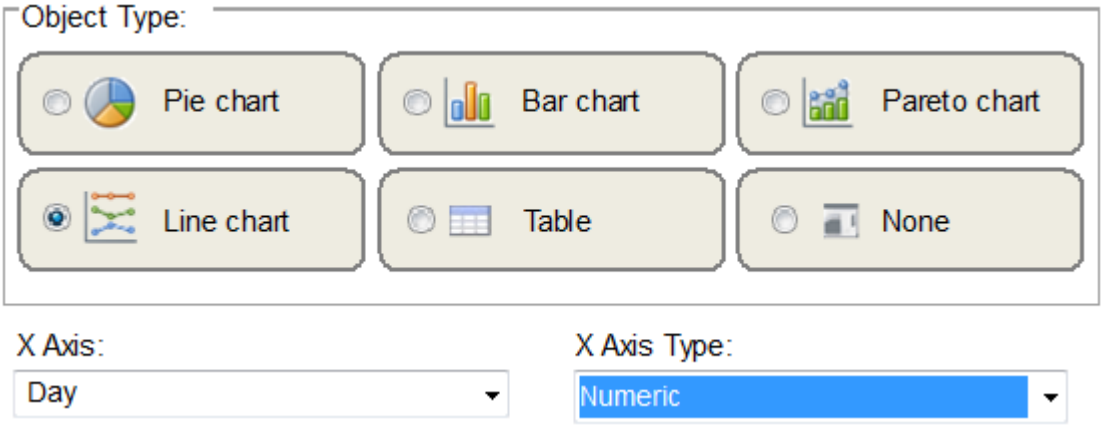
Select the Pareto Chart object to create a Pareto Chart for the selected Query. The user can decide on the Column for the Labels/Values for the chart and the Pareto Chart Skin.

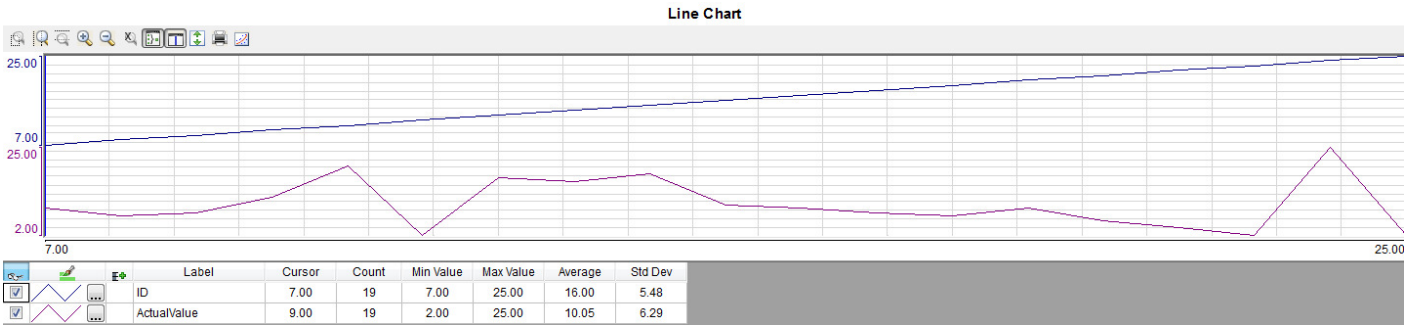




Line Chart

Select the Line Chart object to create a Line Chart for the selected Query. The user can decide on the Column for the X Axis for the chart and if the X Axis is Numeric or Date/Time. If you use a Date/Time Column for X Axis and a Numeric type, or a Numeric Column with Date/Time type, you'll have a Blank Line chart.





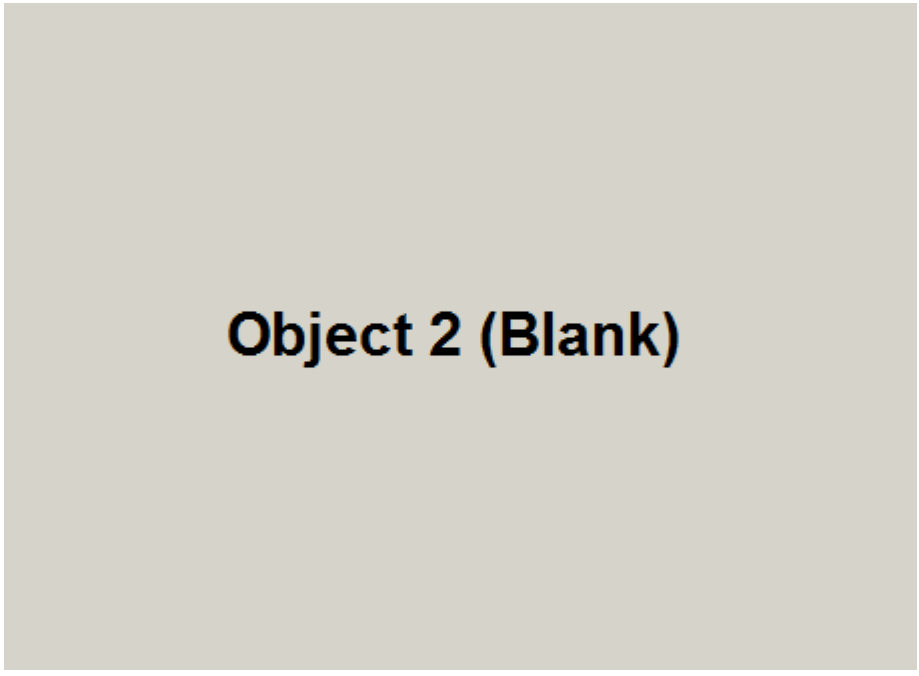
Table

Select the Table object to create a Table for the selected Query.

ID	Day	ActualValue
7	7	9
8	8	7
9	9	8
10	10	12
11	11	20
12	12	2
13	13	17
14	14	16
15	15	18
16	16	10
17	17	9
18	18	8

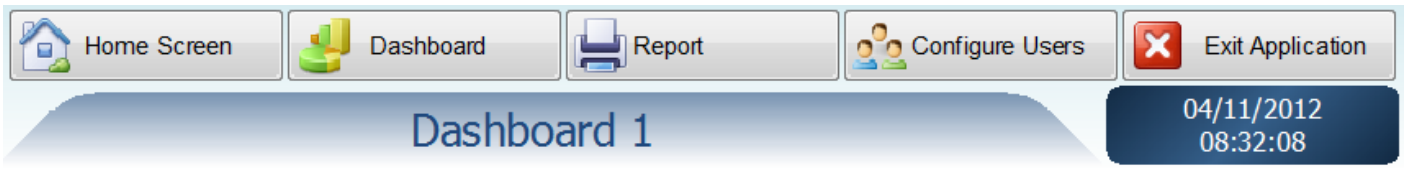
None

Select None to leave the object with a blank screen.

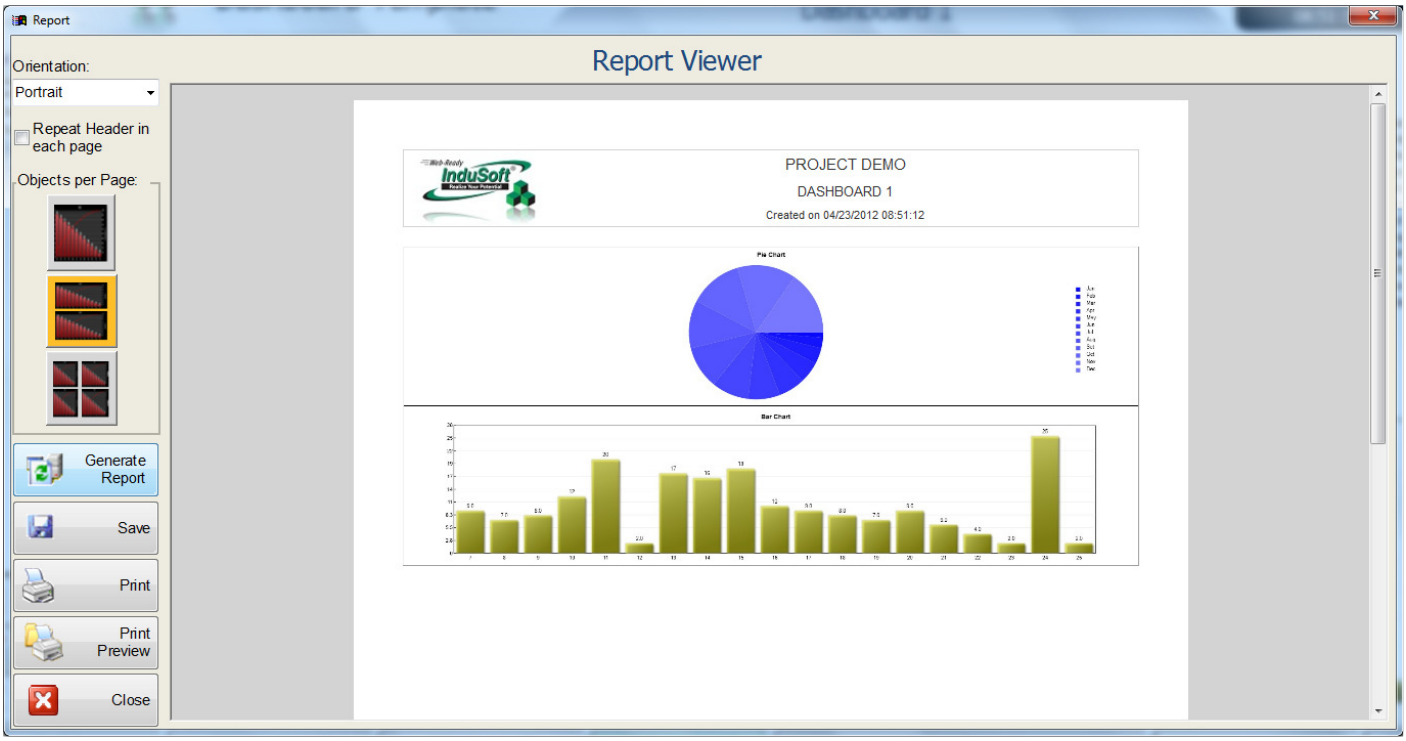


Generate Report

This section describes how the users can Generate Reports, with instructions on how to Save and Print the reports for the selected Dashboard. To access the Report screens, the user have to open one of the dashboards, and then the Report button on the header will be enabled.



Click on the Report button to open the Reports screen, where the user can generate, save, and print reports with the charts from the selected Dashboard.



On the Report Screen the user can see a preview from the report, and the report control buttons.

Report Control

Orientation:

On the orientation box, the user can choose between Portrait and Landscape for the Reports style. Change the orientation in the box and click on generate report to see the report with a different orientation.

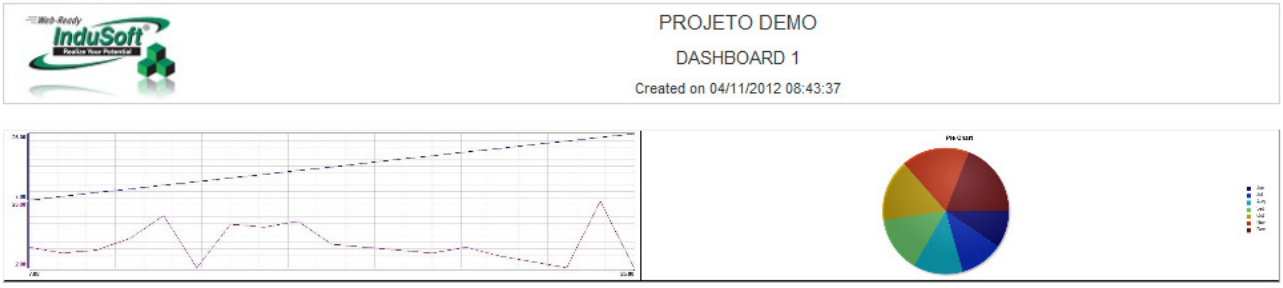
Note: The user have to manually select the orientation before printing the report, the orientation on the Report Viewer is just for a preview of the Report.

Repeat Header

The user can check the Repeat Header in each page to generate reports with a Header for every page. If this option is not checked the report will have a Header only in the first page.

Objects per page

The user can choose between 3 options for the number of objects in a reports page. The user can generate reports with only one, two, or four charts on each page. If the dashboard has two objects and the report is set to have four objects on each page the report is shown as the image below (Orientation set to Landscape).



If the dashboard has a table configured in it, the table shows at a new page, so for reports with 4 objects in a page, the first page show 3 objects, and there's a second page for the Table.

Generate Report

After the user selects the number of objects per page, orientation and if there's a header on every page, use the Generate Report button to refresh the report preview with the new configurations.

Save Report

The user can save the report clicking on the Save button. Click on the save button and select the directory where you want to save the report.

Print Report

The user can print the current report clicking on the print button. The users have to manually select the orientation on the print screen, and configure the margin.

Print Preview

Click on the Print Preview button to open the screen where the user can see the report before printing it.

Close

Click on the Close button to close the Report Viewer Screen.

Note: It's possible to change the Logo on the reports by replacing the ReportLogo.jpg file on the Web Folder. The new logo should be named ReportLogo.jpg.

Application Notes

This section contains important notes about the application.

- The user need the .Net Framework 3.5 + SP1 installed on the computer, so the .Net objects work successfully.
- The users have to configure the margin before printing a Report.
- The application has a limit of 32000 points, and the clause TOP is included in the Query. The user should not use the TOP clause on a query.
- The Order By clause should not be used on Line Charts, or the trend can end up with multiple values on the same point.