Using XLReporter with FactoryStudio Alarms

Overview

XLReporter takes alarm values directly from the Tatsoft FactoryStudio automatically to populate workbooks, periodically or on event, without needing Excel. The award-winning reporting software turns raw data into industrial metrics which are used for compliance, regulatory, improvements and operations.

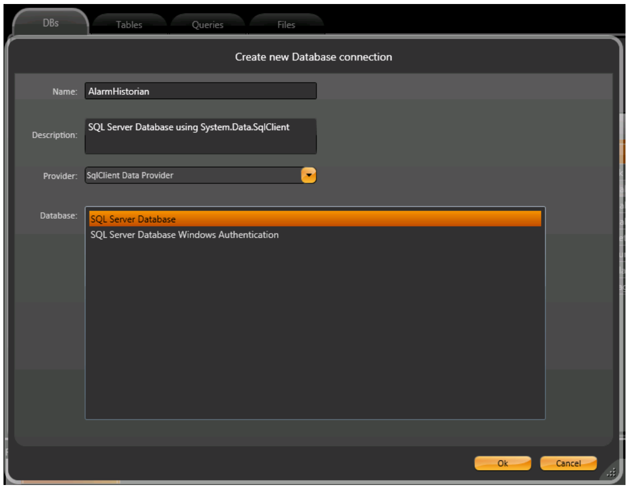
Distribute the reports by email, FTP, file server and printers. Enable **XLReporter's** Web Portal and access reports from any device supporting a web browser such as a smart phone or tablet.

Set up FactoryStudio

FactoryStudio logs Alarm data by defining the **AlarmHistorian** dataset. Just like with historical data, by default, alarm data is logged to an internal server. In order to make alarm data accessible to third party applications, the AlarmHistorian dataset must be redefined to log to a database such as Microsoft SQL server or MySQL.

To make this change, from the **FactoryStudio** menu, open the project. From the menu select **Edit**, **Datasets**.

Rename the existing **AlarmHistorian** dataset. Then, on the **DBs** tab, select **Create new…**. When defining the new database connection, set the **Name** to *AlarmHistorian*.


Create new Database connection

Name: AlarmHistorian

Description: SQL Server Database using System.Data.SqlClient

Provider: SqlClient Data Provider

Database: SQL Server Database
SQL Server Database Windows Authentication

Alarms can then be configured by selecting **Edit**, **Alarms**.

Prerequisites

Verify Database

To verify the database, open the tool provided by the database to view tables and columns. If this is a Microsoft SQL Server database, the SQL Server Management Studio is the tool to use.

Once opened, locate the table that matches the **Table name** specified in for alarms FactoryStudio and select the *TOP 1000 rows*.

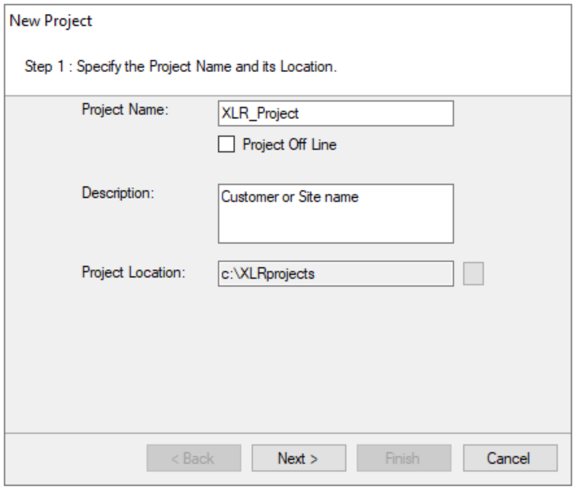
If you are experiencing issues connecting or retrieving data contact Tatsoft technical support.

Create a Project

From the **XLReporter Project Explorer** select **File, New** to start the **Project Wizard**. This will give step-by-step instructions on creating a project

Step 1

- Enter a **Project Name** and **Description** (optional).



New Project

Step 1 : Specify the Project Name and its Location.

Project Name: XLR_Project

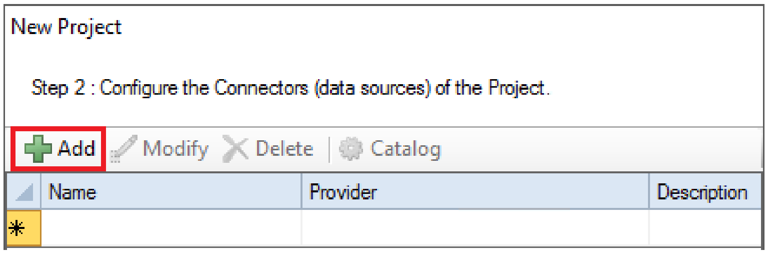
□ Project Off Line

Description: Customer or Site name

Project Location: c:\XLRprojects

Step 2

- Configure the data connector, click **Add**



New Project

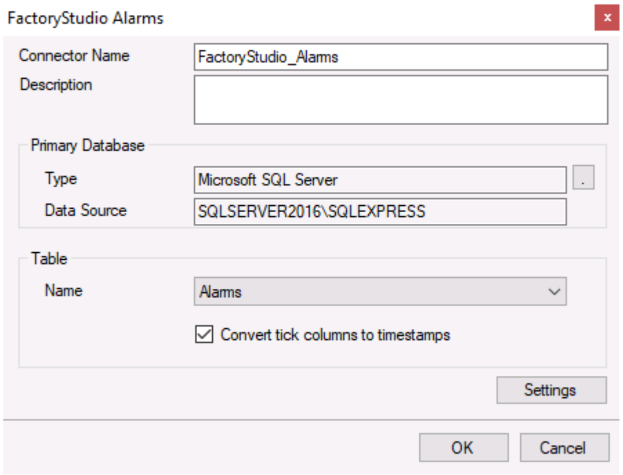
Step 2 : Configure the Connectors (data sources) of the Project.

Name	Provider	Description

Select **Tatsoft, FactoryStudio Alarms**

- Under **Primary Database** click the browse pushbutton ([…]) for **Name**.
- Select the database type on the left and fill out the information to connect to the database where FactoryStudio is logging alarm data.
- Click **Test connection** to verify connectivity.

Back in the **Connector**,



FactoryStudio Alarms

Connector Name: FactoryStudio_Alarms

Description:

Primary Database

Type: Microsoft SQL Server

Data Source: SQLSERVER2016\SQLEXPRESS

Table

Name: Alarms

☑ Convert tick columns to timestamps

- Select the Table corresponding to the table specified when configuring alarm logging the FactoryStudio.
- In the alarms table, there are many "time" columns that are logged as UTC ticks which may not be readable to a user. To convert these columns to show as local timestamps, check the **Convert tick columns to timestamps** setting.

Verify the Data Connector

XLReporter retrieves data from the **Data Connector** using a **History Group**.

From the **XLReporter Project Explorer** select**, Tools, Connector Groups**

Select the *FactoryStudio Historical values* connector and then select **Add.**

- Set the **Type** *Raw Values* and click **OK**.

On the **Columns** tab of the group, select the tag **Name**(s).

Select **Preview,** pick a *Start* date and click **Refresh.**