

Using XLReporter with OSIsoft PI Historian

Overview

This connector is used to get historical data from the PI Historian via the PI OLEDB provider or ODBC driver.

Prerequisites

Installation

OLEDB

The PI OLEDB provider is a separate installation. It needs to be installed on the machine where **XLReporter** is installed.

The installation can be found on the installation media under *Advanced Server Options\PIDASSetup\OLEDB Provider*.

ODBC

The PI ODBC driver is provided as a separate installation. It needs to be installed on the machine where **XLReporter** is installed.

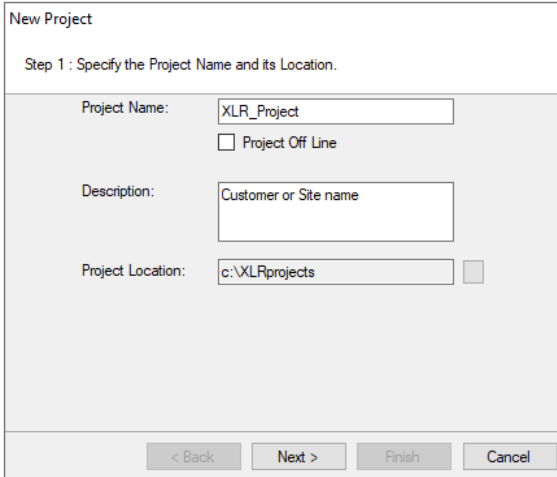
The installation must be downloaded from the OSIsoft website. On the PI ODBC Driver webpage, click the All Versions tab and download and install **PI ODBC Client Install Kit** version **1.3.1.0**.

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).



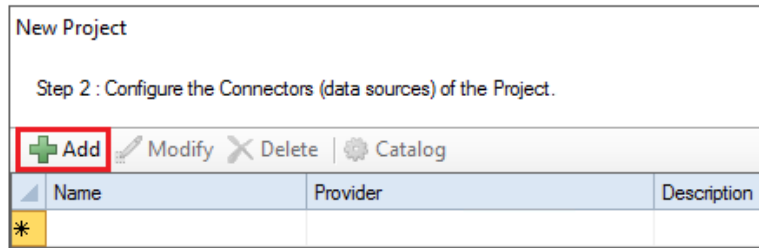
The screenshot shows a 'New Project' dialog box with the following fields and options:

- Project Name:** XLR_Project
- Project Off Line
- Description:** Customer or Site name
- Project Location:** c:\XLRprojects

At the bottom, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 2

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



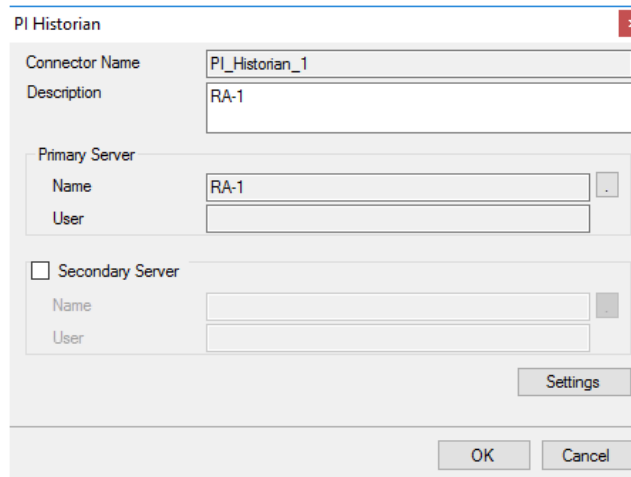
New Project

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

+ Add | Modify | Delete | Catalog

Name	Provider	Description
*		

Select **OSIsoft, PI Historian**.



PI Historian

Connector Name: PI_Historian_1

Description: RA-1

Primary Server

Name: RA-1

User:

Secondary Server

Name:

User:

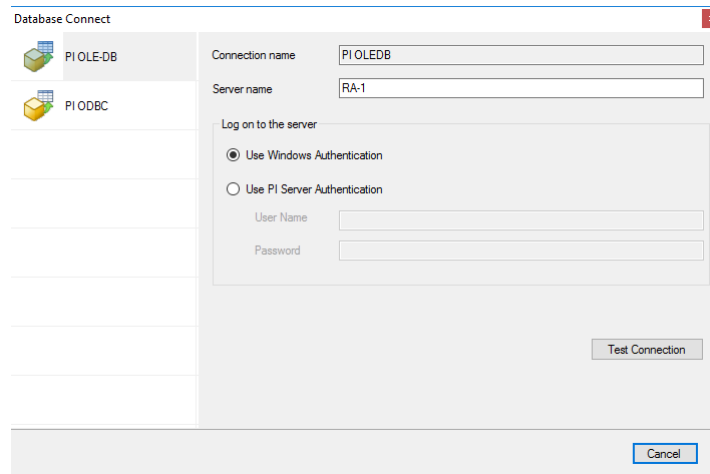
Settings

OK Cancel

Primary Server

This defines the connection to the PI OLE-DB or PI ODBC server for the historian. Click the browse button (...) to define.

OLEDB



Database Connect

PI OLE-DB

PI ODBC

Connection name: PI OLEDB

Server name: RA-1

Log on to the server

Use Windows Authentication

Use PI Server Authentication

User Name:

Password:

Test Connection

Cancel

For the PI OLEDB provider set the **Server name** to the name of the machine where the historian is installed and running.

To **Log on to the server** you can use the current windows user or specify a user configured in the Historian as part of the PI System Management Tools.

ODBC

For the PI ODBC driver, set **PI Data Source Name** to a Data Source Name (DSN) configured on the system. The DSN can either be set up for **All Users** (System DSN) or the **Current User** (User DSN). If you have not already configured a DSN to the PI server, click **New** to create one. Note, for **All Users** you must have Administrator credentials.

When configuring the PI ODBC Data Source, under the **PI Server** settings, set **Name** to the name of the machine where the PI server is installed and running. If **Perform explicit login using PI username and password** is checked, back in the Connector dialog you will have to **Use PI Server Authentication** and specify a **User Name** and **Password** set up in the PI System Management Tools.

If you are retrieving integer values from the historian, set **Interval Values as** to *VALUE*, otherwise you get the *STATUS* (i.e., quality) returned rather than the value for each integer tag.

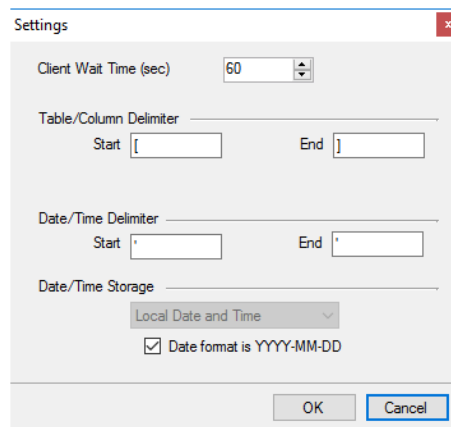
Under **Aggregate Timestamp**, be sure to select **Start of Interval** as **XLReporter** timestamps all historical data with the start of the interval.

Secondary Server

These settings define the (optional) secondary Historian to connect to if a connection to the Primary Server fails.

Settings

The **Settings** button opens the **Settings** dialog that defines characteristics of the database that are used to retrieve data.



The screenshot shows a 'Settings' dialog box with the following fields and options:

- Client Wait Time (sec):** A spinner box set to 60.
- Table/Column Delimiter:** Two input fields labeled 'Start' and 'End'. The 'Start' field contains '[' and the 'End' field contains ']'.
- Date/Time Delimiter:** Two input fields labeled 'Start' and 'End'. Both fields contain '*'.
- Date/Time Storage:** A dropdown menu currently showing 'Local Date and Time'. Below it is a checked checkbox labeled 'Date format is YYYY-MM-DD'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Typically, these settings are defaulted correctly based on the **Primary Server**. If not, then these settings will need to be updated. See the **Database Connectors** document for more information on each 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 *PI Historian* 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**.