

Using XLReporter with FactoryTalk Historian SE - VantagePoint

Overview

XLReporter takes historical values from the FactoryTalk Historian SE to populate reports, periodically, on event or on demand. The award-winning reporting software turns raw data into industrial metrics which are used for compliance, regulatory, improvements and operations.

Complete reports are distributed automatically by email, FTP, file server and printers. With the Web Portal, reports are viewed or produced on-demand from any device supporting a web browser such as a mobile phone, tablet, desktop or FactoryTalk ViewPoint.

XLReporter connects to FactoryTalk Historian SE through the VantagePoint interface. This approach requires:

- FactoryTalk VantagePoint installation.
- 1 VantagePoint client license.

Prerequisite

The Historian is typically delivered with one client license of VantagePoint. XLReporter retrieves data from the Historian using this license. VantagePoint licenses can be purchased from Rockwell Automation.

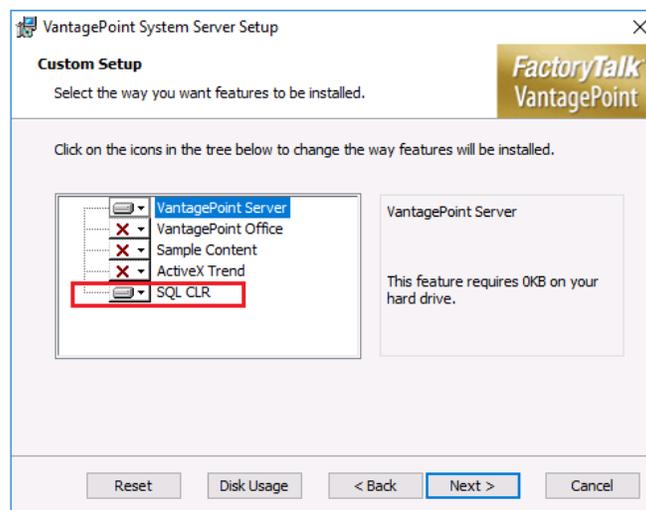
The VantagePoint Server and the SQL interface must be installed. The VantagePoint Server requires the following to be enabled/installed:

- Internet Information Services (IIS) on the machine where VantagePoint is installed. For more information on the IIS options to enable, see the VantagePoint Getting Results Guide which is available from the VantagePoint installation media.
- Microsoft SQL Server or SQL Server Express. This can be on the local machine or across the network. A copy of SQL Server is provided on the VantagePoint installation media.

Set up FactoryTalk VantagePoint

Installation

During the installation of VantagePoint, select the **Setup Type** as *Custom*.

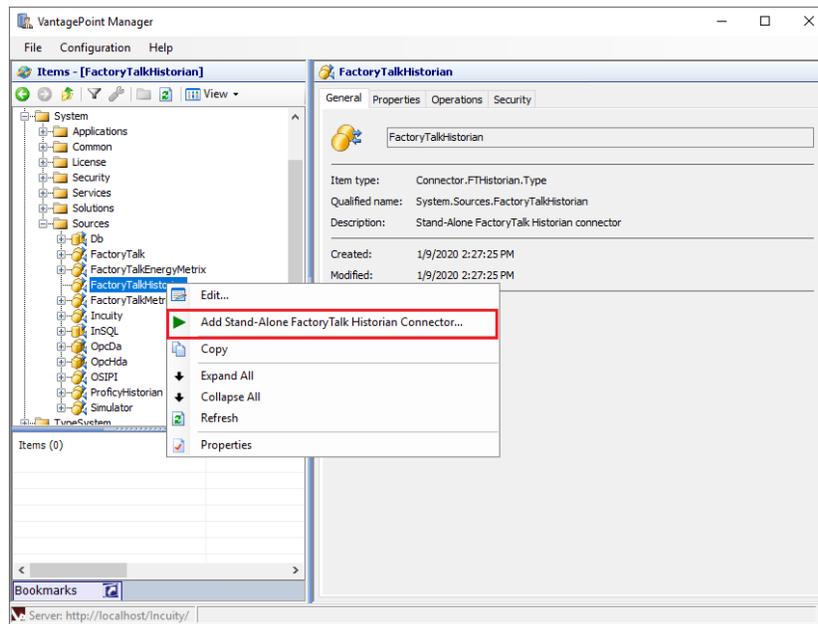


At a minimum, the **VantagePoint Server** and **SQL CLR** features must be selected to install.

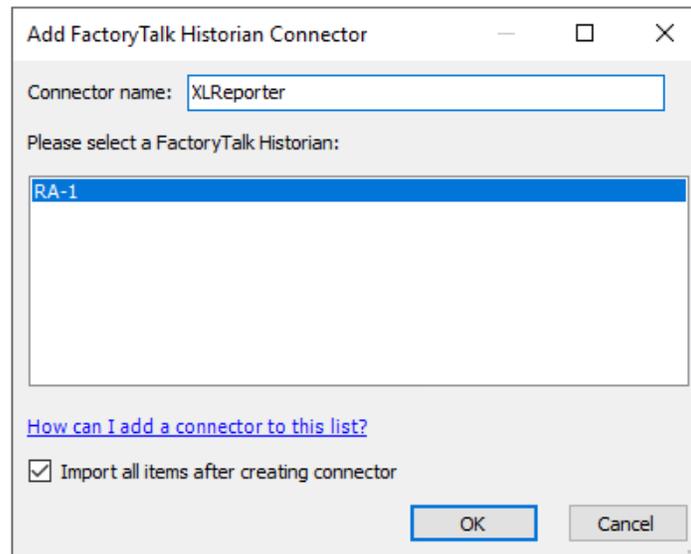
Create the Connector

In the VantagePoint Manager, a FactoryTalk Historian **Source** must be created.

- From the **Rockwell Software** program group, select **FactoryTalk VantagePoint, Manager**.



- Expand **System** and then **Sources**.
- Select **FactoryTalkHistorian**, right click and select **Add Stand-Alone FactoryTalk Historian Connector**.

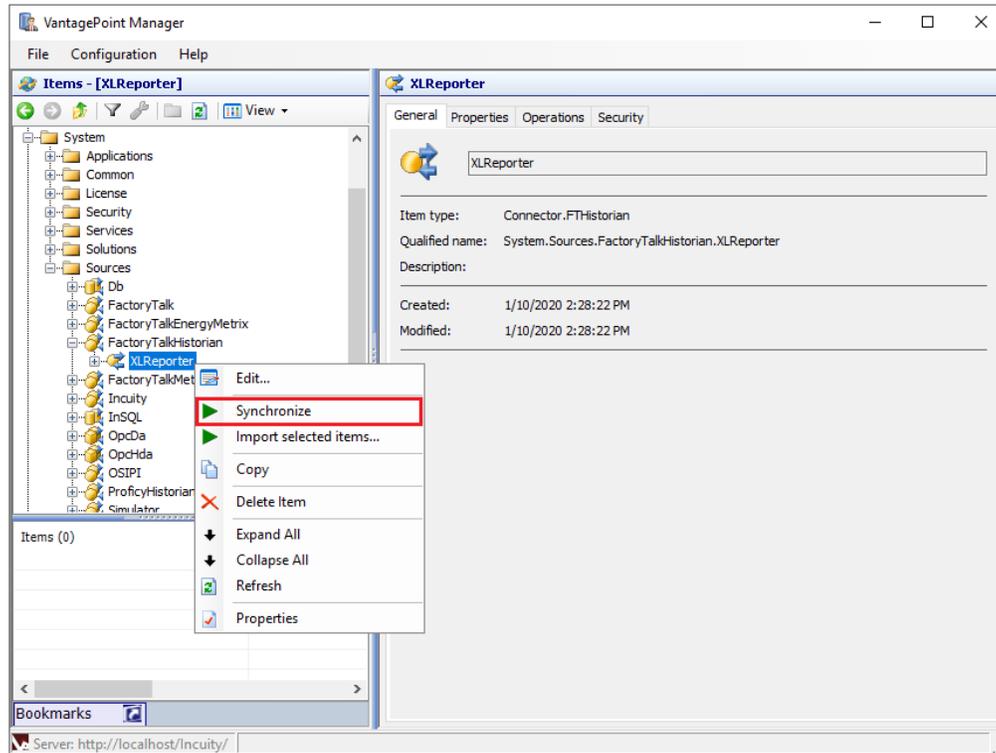


- Specify a **Connector name**.
- Select the **FactoryTalk Historian**.
- Leave **Import all items after creating connector** checked.
- Click **OK**.

The connector is created and all the tags currently in the historian are imported so that they are available to **XLReporter**.

Synchronize Tags to Vantage Point

If tags are added to the historian after the connector is created they will not be visible to **XLReporter** using the connector. To synchronize new tags return to the **VantagePoint Manager**

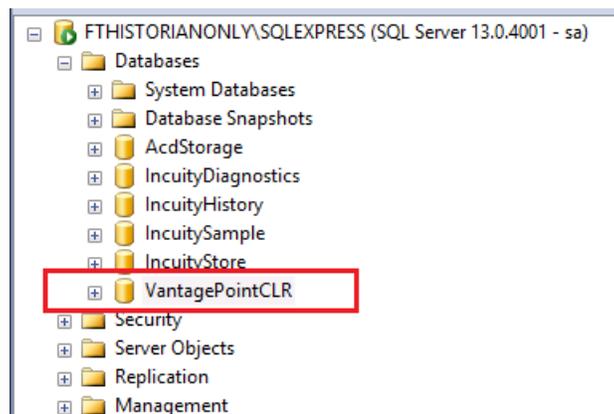


- Expand **System**, **Sources**, **FactoryTalkHistorian**.
- Select the historian connector created previously, right click and select **Synchronize**.

Any new tags in the historian are added to the connector. This also removes any tags that have been removed from the historian since the connector was created (or since the last time it was synchronized).

Verify the Connection

Open **Microsoft SQL Server Management Studio** and connect to the SQL Server or SQL Server Express instance set up for VantagePoint.



Expand **Databases** and select **VantagPointCLR**. Right click and select **New Query**.

For the query, enter the following:

```
SELECT [dbo].[GetVersion]('Host')
```

Where *Host* is the name of the machine where VantagePoint is installed.

Click **Execute** to run the query. If an error is returned, contact Rockwell Automation technical support to correct the issue.

SQL Server Considerations

When using SQL Server there are some things to take into consideration including remote connectivity, instance browsing and user authentication. For more information, see the Technical Note *How to Configure Microsoft SQL Server*.

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 the '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

Buttons at the bottom: < Back, Next >, Finish, Cancel

Step 2

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

The screenshot shows the 'New Project' dialog box with the following elements:

- Buttons:** + Add (highlighted with a red box), Modify, Delete, Catalog
- Table:**

Name	Provider	Description
*		

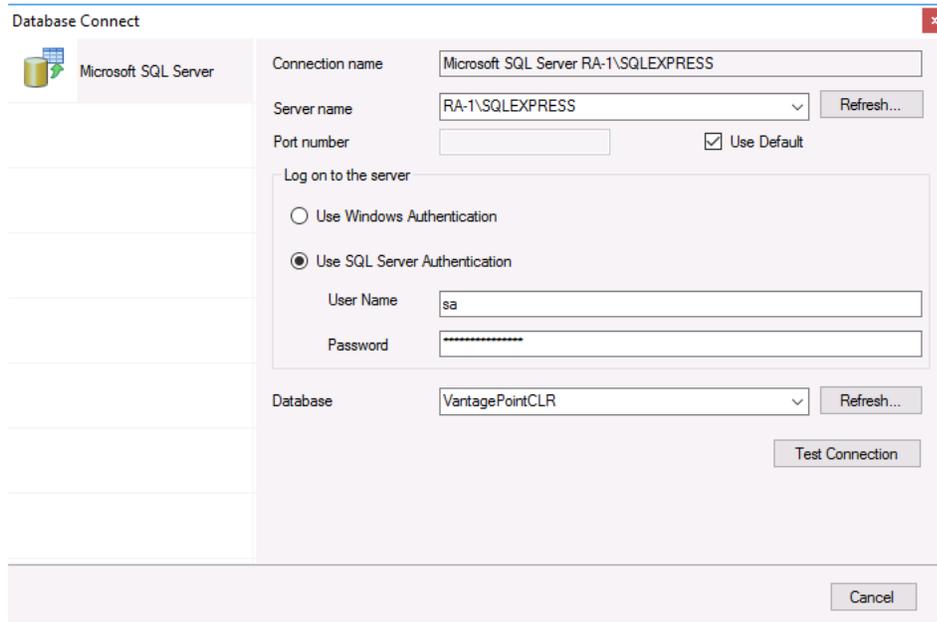
- Select **Rockwell Automation, FactoryTalk Historian SE (CLR)**

The screenshot shows the 'FactoryTalk Historian SE (CLR)' dialog box with the following fields and options:

- Connector Name:** FactoryTalk_HistorianCLR
- Description:** RA-1\SQLEXPRESS
- Primary Database:**
 - Type:** Microsoft SQL Server
 - Data Source:** RA-1\SQLEXPRESS
- Settings:**
 - Historian Connector:** XLReporter

Buttons at the bottom: Settings, OK, Cancel

- Under **Primary Server** click the browse pushbutton ([...]) for **Name**.



- On the left, select **Microsoft SQL Server**.
- Select the **Server name**.
- Under **Log on to the server**, select the option that best fits the configuration of the system..
- Set the **Database** to *VantagePointCLR*.
- Click **Test Connection** to verify.

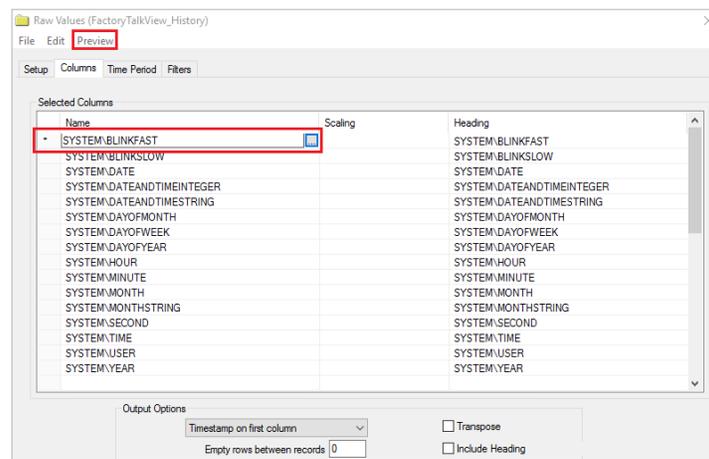
Under **Settings**, set **Historian Connector** to the connector configured within the VantagePoint Manager.



Verify the Data Connector

XLReporter retrieves data for a report using a **History Group**. A quick way to create a History Group is from the **XLReporter Project Explorer**.

- Select, **Tools, Connector Groups**
- Select the *FactoryTalk View Historian SE* connector
- Select **Add**.
- Set the Type *Raw Values* and click OK.



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

From the menu bar

- Click **Preview**
- Enter a *Start* date
- Click **Refresh**.

Preview

Refresh Stop

Date

Start 08 Jan 2020

End 09 Jan 2020

Date	SYSTEM\BLINKFAST	SYSTEM\BLINKSLOW
1/8/2020 1:45:09 PM	0	0
1/8/2020 1:46:09 PM	1	1
1/8/2020 1:47:09 PM	1	0
1/8/2020 1:48:09 PM	1	1
1/8/2020 1:49:09 PM	0	1
1/8/2020 1:50:09 PM	1	1
1/8/2020 1:51:09 PM	1	0
1/8/2020 1:52:09 PM	1	0
1/8/2020 1:53:09 PM	0	1
1/8/2020 1:54:09 PM	1	1
1/8/2020 1:55:09 PM	1	0
1/8/2020 1:56:09 PM	0	0

Rows 60