

Using XLReporter with DeltaV Continuous Historian

Overview

XLReporter takes historical values from the Emerson Automation Solutions DeltaV Continuous Historian automatically to populate workbooks, periodically, via VBA or on event, without needing Excel. The award winning history engine of **XLReporter** can return either raw or calculated Industrial metrics directly to the reports.

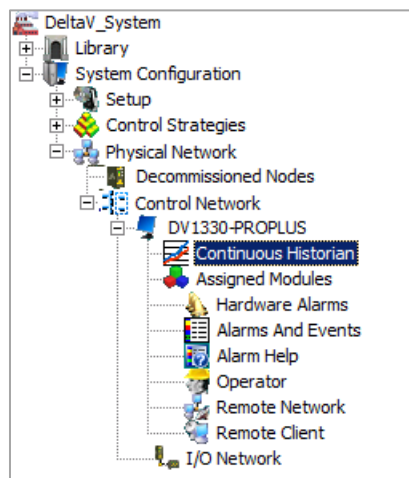
Distribute the reports by email, FTP, file server and printers. Enable **XLReporter's** Web Portal and access reports from any device supporting a web browser such as a smart phone or tablet.

Setup DeltaV

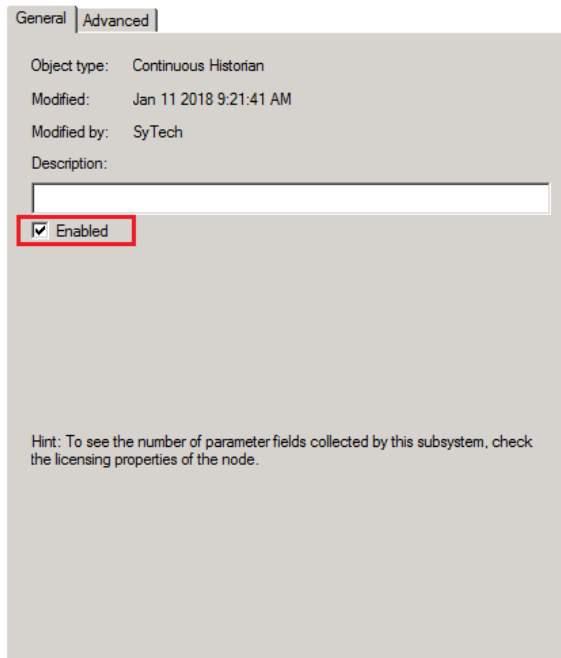
Enable Continuous Historian

To enable the Continuous Historian, open the **DeltaV Explorer**.

On the left side expand **Physical Network, Control Network**. Expand the DeltaV node and select **Continuous Historian**.



Right-click and select **Properties**.

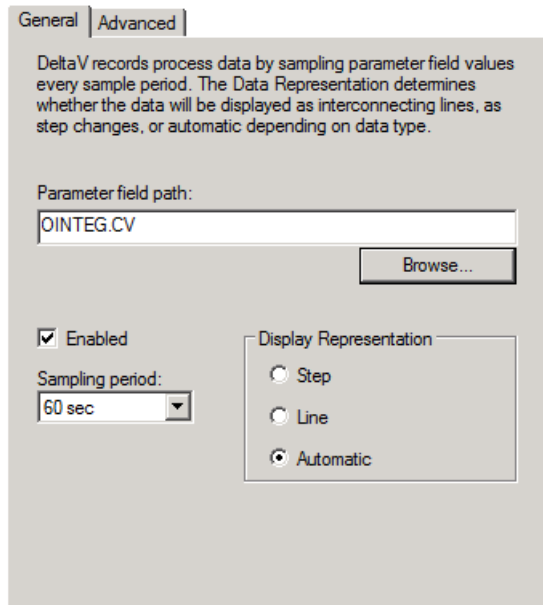


Under the **General** tab, check **Enabled**.

History Collection

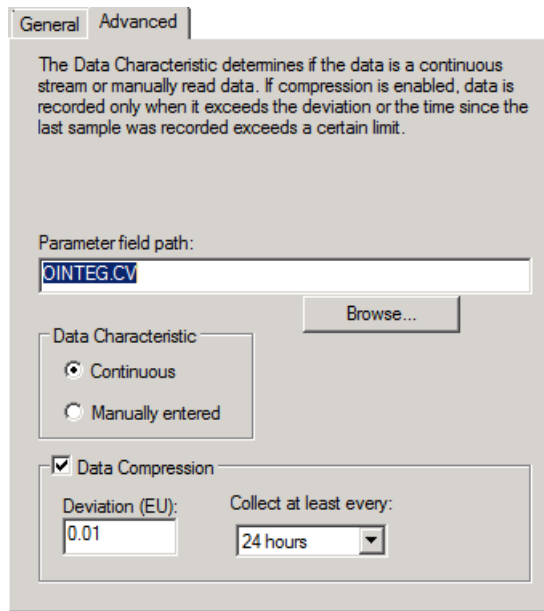
To configure tags for history collection to the Continuous Historian, in the **DeltaV Explorer**, expand **Physical Network, Control Network**. Right click the DeltaV node and select **History Collection**.

Every tag configured for history collection is listed here. Click **Add** to add a tag to the collection.



Under the **General** tab click the **Browse** button to specify the tag to collect.

The **Sampling period** defines how often a new value is logged to the historian.



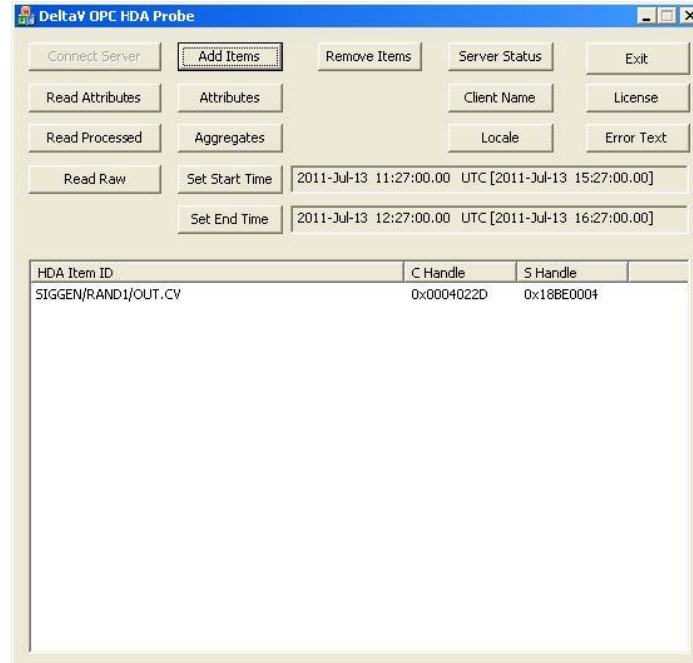
Under the **Advanced** tab, enable **Data Compression** to reduce the amount of data logged for the tag. The **Collect at least every** setting ensures that at least 1 sample is collected periodically regardless of the how the data is compressed.

Prerequisites

Verify History Data

To verify history data is being collected use the HDAprobe application provided with DeltaV.

To run, browse to *C:\DeltaV\bin* or *C:\DeltaV\DVUtilities* and double-click **HDAprobe.exe**.



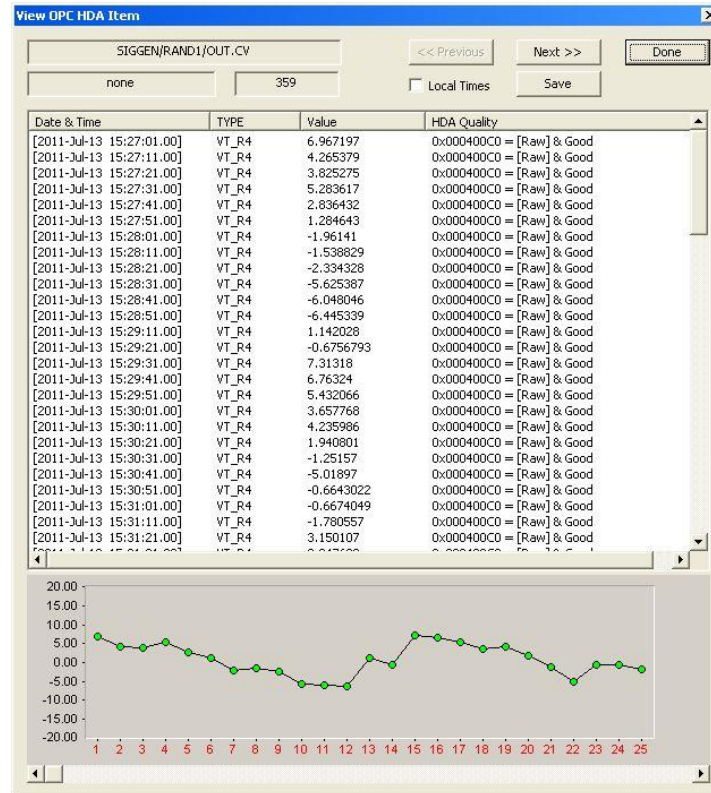
- Click **Connect Server** and select *DeltaV.OPCHDAsvr.1*.
- Click **Add Items**. This opens the **Add HDA Items** window.
- Click **Browse** to open the **OPC HDA Browse** window.
- Click **New Browser** to view a list of tags.
- Select a tag and click **OK**. That tag is now listed in the Add HDA Items window.
- Click **Add** to add the tag

- Click **Done** to return to the main DeltaV OPC HDA Probe window.

Now that a tag is selected, data can be read. Select the tag and click **Read Raw** to read the raw values recorded for the selected tag. This opens the **HDA Read Raw** window.

- Click **Set Start Time** and **Set End Time** to specify the time frame.
- By default time is in UTC (universal time). Check **local** to convert to local time.
- Click **Read Raw**. If this is successful, HR displays *Success*.

To view the raw values, click **View Values**.



This opens the View OPC HDA Item window that displays the historical data for the tag selected as well as a graph. Click **Done** to close.

To retrieve processed values (e.g., averages, maximums, minimums, etc.) follow the steps above but click **Read Processed** rather than **Read Raw**.

If the client does not respond as described contact Emerson Automation Solutions technical support to troubleshoot and correct these issues.

Remote Connectivity

OPC Core Components

If **XLReporter** is not installed on the same machine as the Continuous Historian, the **XLReporter** machine must have the OPC Core Components installed.

To determine if the core components are installed verify the following file exists:

- 64 - bit OS C:\Windows\SysWow64\OPCEnum.exe
- 32 - bit OS C:\Windows\system32\OPCEnum.exe

If the components are not installed then they are provided in the XLReporter installation folder under `_repairtools\OPC`. Alternatively these can be downloaded from www.opcfoundation.org.

Server Settings

In order to connect to the Continuous Historian remotely both the machine where the server is running and the machine where the client is running must have matching Windows user accounts and the client must be logged in with a matching account.

In addition, on the machine with the Continuous Historian, certain DCOM settings must be enabled. For details on what DCOM settings to enable, see [OPC and DCOM 5 things you need to know](#).

Windows Firewall

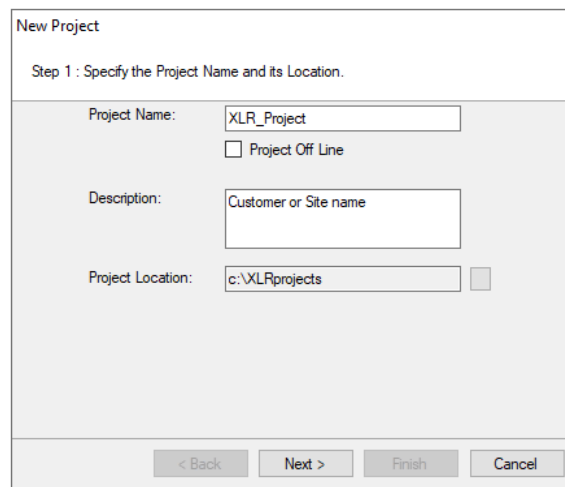
If the Windows Firewall is enabled on the machine where the Continuous Historian is running TCP Port 135 must be opened in order for remote clients to connect.

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

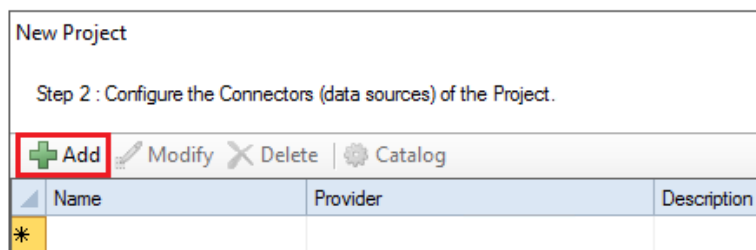
- Enter a **Project Name** and **Description** (optional).



The screenshot shows the 'New Project' dialog box. The title is 'New Project'. Below the title, it says 'Step 1 : Specify the Project Name and its Location.' There are three input fields: 'Project Name' with the text 'XLR_Project', 'Description' with the text 'Customer or Site name', and 'Project Location' with the text 'c:\XLRprojects'. There is a checkbox labeled 'Project Off Line' which is unchecked. At the bottom, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 2

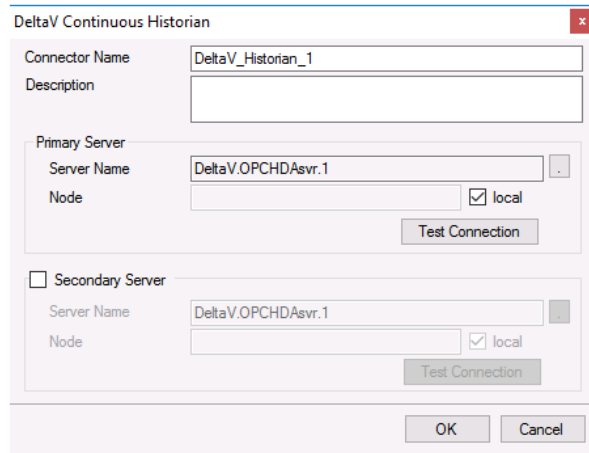
- Configure the data connector, click **Add**.



The screenshot shows the 'New Project' dialog box, Step 2: Configure the Connectors (data sources) of the Project. At the top, it says 'Step 2 : Configure the Connectors (data sources) of the Project.' Below this, there is a toolbar with icons for '+ Add', 'Modify', 'Delete', and 'Catalog'. The '+ Add' icon is highlighted with a red box. Below the toolbar is a table with three columns: 'Name', 'Provider', and 'Description'. The first row is empty and has a yellow asterisk icon in the first cell.

Name	Provider	Description
*		

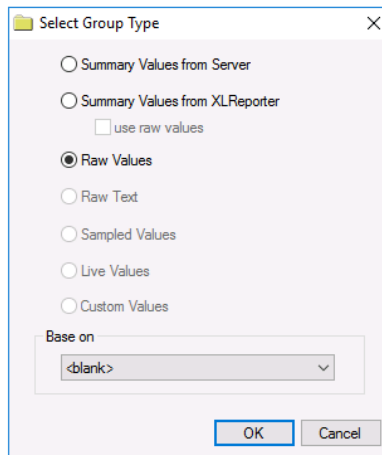
Select **Emerson Automation Solutions, DeltaV Continuous Historian**.



The connector requires a Primary Server. Set the **Node** to *local* unless DeltaV is on a remote machine in which case the Node is selected from the dropdown list or entered manually as an IP address.

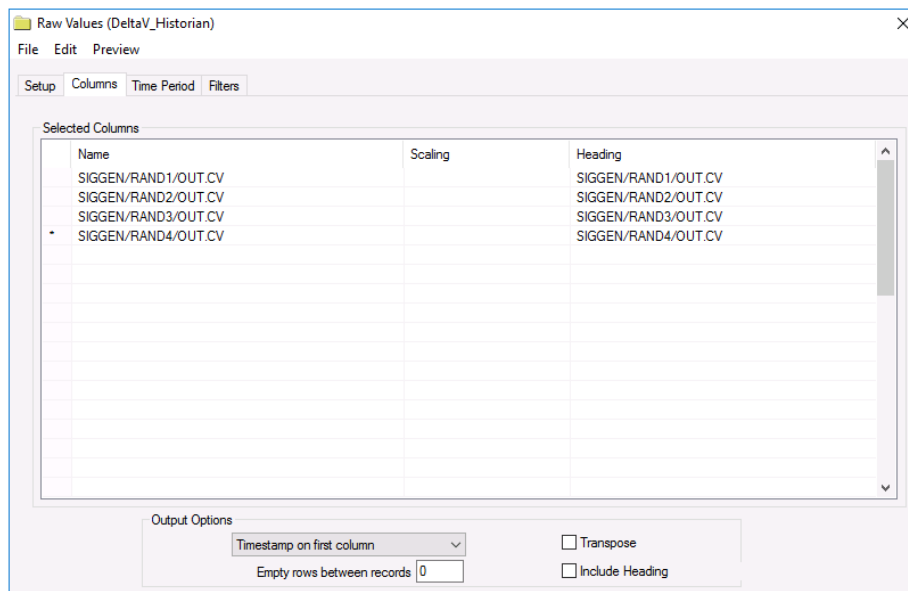
Verify Data Communication

To verify communication with DeltaV Continuous Historian, open the **Project Explorer** and select the **Tools** tab. Open **Connector Groups**. Select your DeltaV Continuous Historian connector and then select **Add**.



Set the **Group Type** to *Raw Values* and click **OK**.

Under the **Columns** tab:



- Select the first row under the **Name** column.
- Click the browse pushbutton (...).
- In the Tag Browser expand **Online** and add **Items** from the lower left.
- Click **OK** to add these to the group.

To retrieve data, select **Preview**. In the **Preview** window, use the data picker to select a date and time during which data has been logged. Click **Refresh** to view data. The first 60 records starting at the date and time specified should be displayed.