

Using XLReporter with Canary Labs Historian

Overview

This connector is used to get historical values from the Canary Labs Historian via the Canary Labs OPC HDA server.

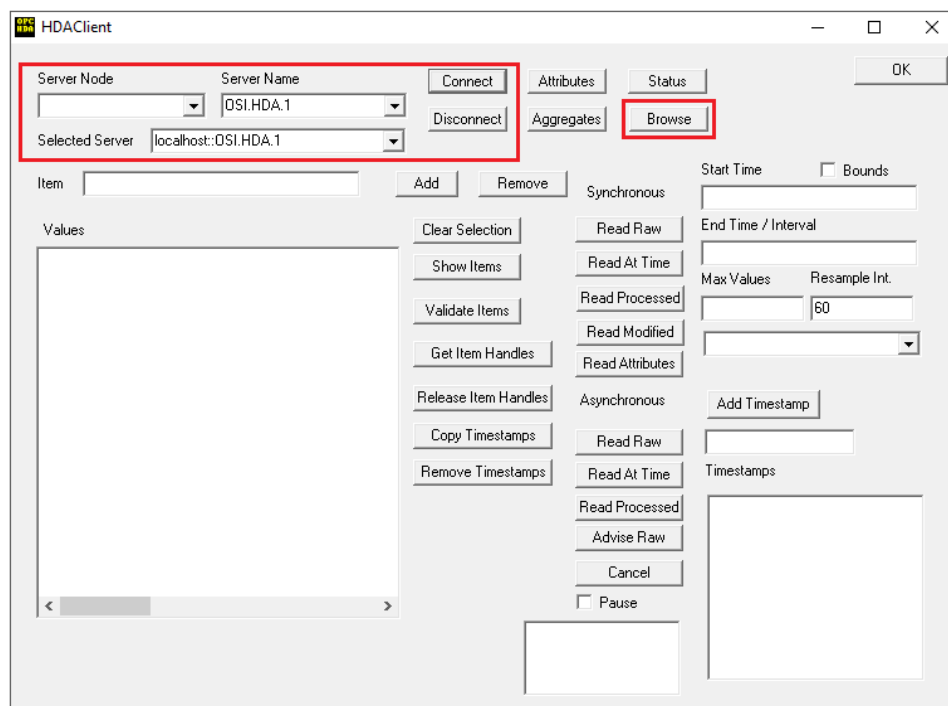
Prerequisites

Verify Communication

Communication between the OPC server and an OPC client must be verified. Some OPC Server vendors provide OPC HDA clients with their servers. These clients can be used to validate.

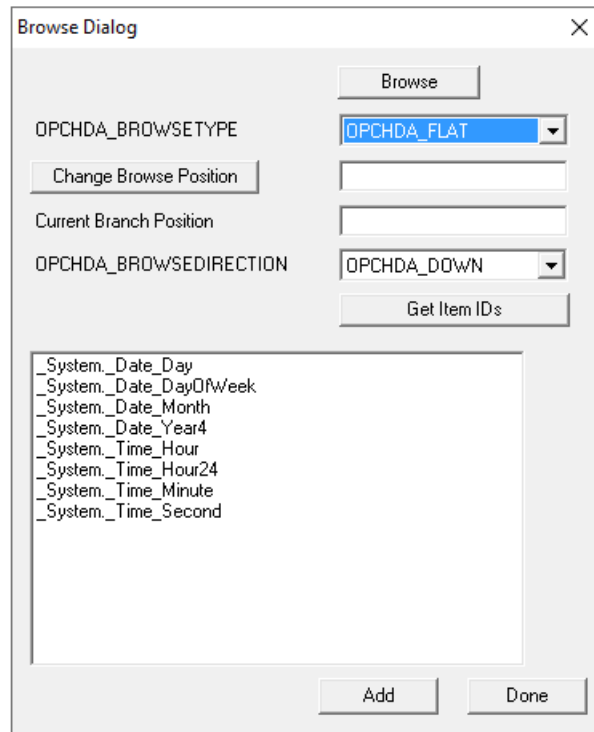
If an OPC HDA client is not provided with the server, **XLReporter** provides an independent OPC HDA client to verify connectivity and data retrieval from any OPC HDA server. This client is found on **XLReporter's** product CD under **Tools, OPC, OPC_HDA**. It can also be downloaded from www.SyTech.com.

To run, double-click **SampleClientHDA.exe**.



To connect to an OPC HDA server select the **Server Name** from the dropdown list and click **Connect**.

Click **Browse** to open the **Browse Dialog** window.



The easiest way to get a list of tags is to set **OPCHDA_BROWSETYPE** to *OPCHDA_FLAT*. Choose each tag to test by selecting it and clicking **Add**. When complete, click **Done** to return to the **HDA Client** window.

Click **Show Items** to display the selected tags in the left pane window. Click **Validate Items** then **Get Item Handles** to register these tags with the server.

Enter the **Start Time** and **End Time**. Note this is in UTC(Universal Time Clock) and click **Read Raw**. The raw values for each selected tag will appear on the left along with a timestamp and quality.

To read processed data, click **Aggregates**, select the appropriate aggregate (e.g., maximum, minimum, etc.) and click **Read Processed**. One minute calculations between the start and end time should appear for each selected tag.

If the client does not respond as described contact the OPC HDA Server vendor technical support to troubleshoot and correct these issues.

Remote Connectivity

OPC Core Components

If **XLReporter** is not installed on the same machine as the OPC HDA Server, 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 an OPC HDA server 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 OPC HDA server, 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

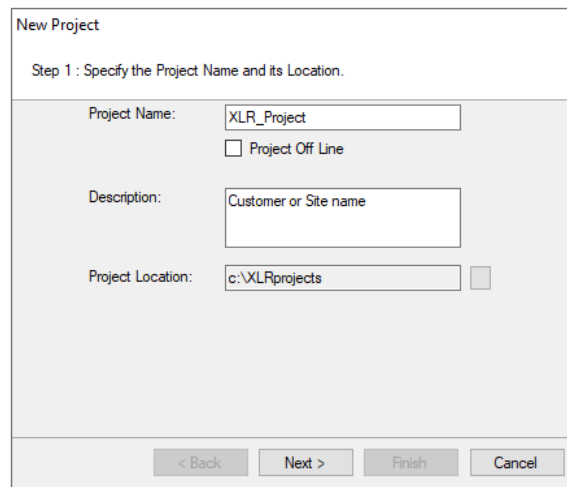
If the Windows Firewall is enabled on the machine where the OPC HDA server is running TCP Port 135 must be opened in order for remote clients to connect.

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).



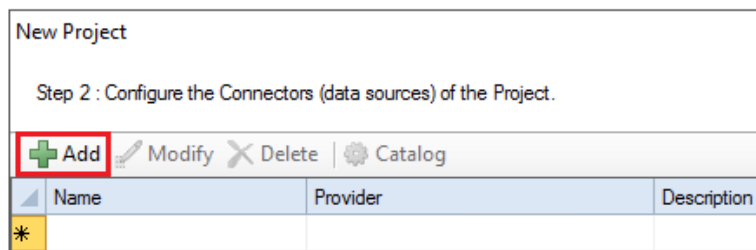
The screenshot shows the 'New Project' dialog box with the following fields and options:

- 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:

- Step 2 : Configure the Connectors (data sources) of the Project.**
- Buttons: + Add (highlighted with a red box), Modify, X Delete, Catalog
- Table with columns: Name, Provider, Description
- Row 1: * (in a yellow box), empty, empty

Select **Canary Labs, Canary Labs Historian**.

Primary Server

These settings define the **Name** and **Node** of the OPC HDA server. Typically, the **Name** is defaulted correctly. If the server is on the local machine, leave **local** checked, otherwise uncheck and specify either the name or IP address of the machine where server is running.

Use the **Test Connection** button to verify a connection to the server.

Secondary Server

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

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 *Canary Labs 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**.