

## Using XLReporter with OPC HDA

### Overview

**XLReporter** takes historical values directly from any OPC HDA server automatically to populate workbooks, periodically or on event, without needing Excel. The award winning **XLReporter** history engine 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.

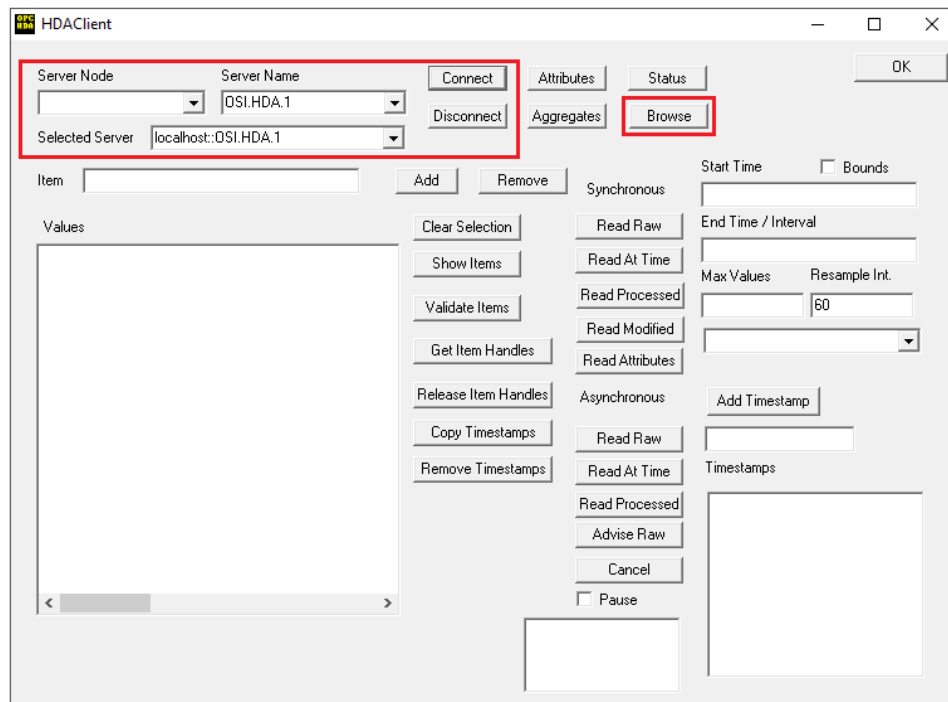
### Prerequisites

#### 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.

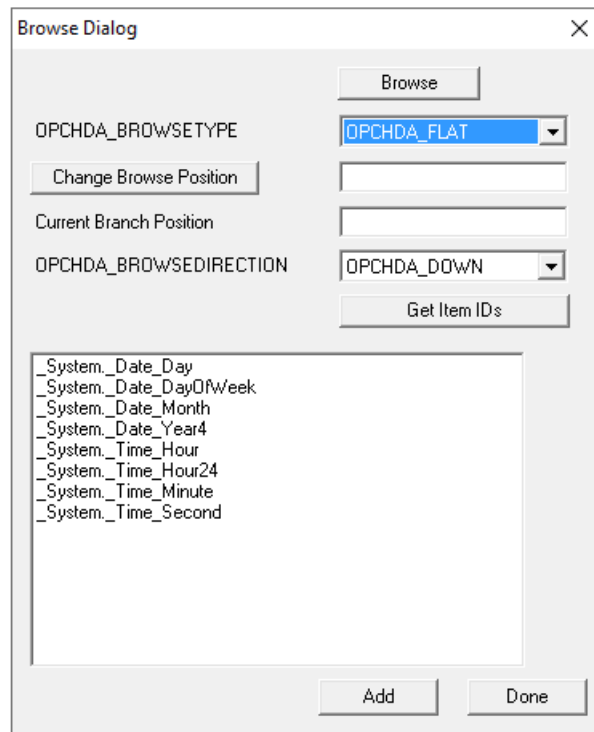
If an OPC HDA client is not provided with the server, **XLReporter** provides an independent OPC HDA client to verify connectivity and data retrieval from any OPC HDA server. This client is found on **XLReporter's** product CD under **Tools, OPC, OPC\_HDA**. It can also be downloaded from [www.SyTech.com](http://www.SyTech.com).

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.

## 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 tools folder of the installation or from [www.opcfoundation.org](http://www.opcfoundation.org).

# 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

Navigation 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:

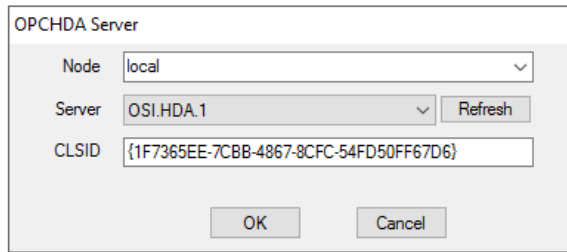
- Step 2 : Configure the Connectors (data sources) of the Project.**
- Buttons: **+ Add** (highlighted with a red box), Modify, Delete, Catalog.
- Table with columns: Name, Provider, Description.
- Table content: \* (in the Name column)

## Select **OPC, OPC HDA Historical values**

The screenshot shows the 'OPC HDA Historical values' dialog box with the following fields and options:

- Connector Name:** OPC\_History
- Description:** local OPC HDA historian
- Primary Server:**
  - Server Name:** OSI.HDA.1
  - Node:** local
  - Test Connection button
- Secondary Server:**
  - Server Name:** OSI.HDA.1
  - Node:** local
  - Test Connection button
- Buttons: OK, Cancel

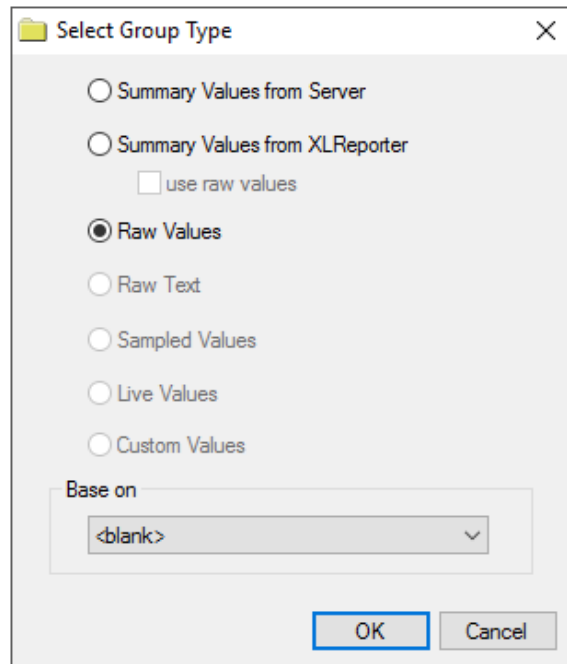
The connector requires a **Primary Server**. Click the browse pushbutton ([...]) for Name to select an available OPC HDA Server.



If the OPC HDA Server is local to the machine, leave **Node** as *local* otherwise specify the computer name or IP address of the node where the OPC HDA Server is running. Click **Refresh** to populate the Server list available from the **Node** and select the **Server**.

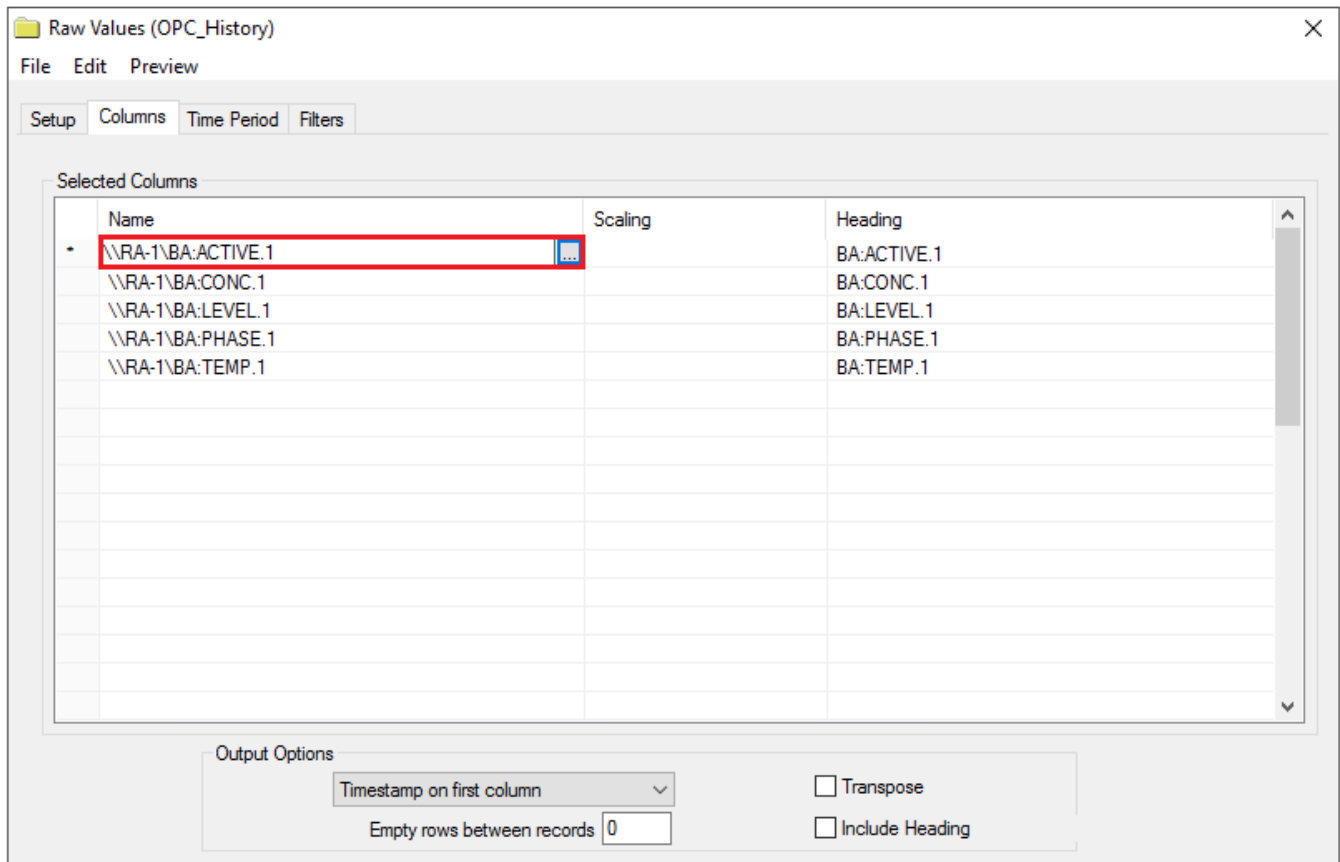
### Verify Data Communication

To verify data communication with the OPC HDA Server, open the **Project Explorer** and select the **Tools** tab. Open **Connector Groups**. Select your OPC HDA Server connector and then select **Add**.



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

On 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 with for which data has been logged. Click **Refresh** to view data. The first 60 records starting at the date and time specified should be displayed.