

Using XLReporter with OPC UA

Overview

XLReporter takes process values directly from a PLC to a report without requiring a historian or database. This is accomplished by “report-as-you-run” technology that automatically populates a workbook, periodically or on event, without needing Excel. Completed reports are produced in workbook, PDF and web formats.

Data retrieval from a PLC or device uses an OPC UA Server. **XLReporter** has many connectors available for specific OPC UA servers. The following describes using **XLReporter** with any OPC UA server.

Prerequisites

Verify Communication

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

If an OPC client is not provided with the server, you can download the UAExpert OPC UA client from Unified Automation to verify connectivity and data retrieval from the OPC UA server.

OPC Core Components

If **XLReporter** is not installed on the same machine as the OPC UA 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.

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 dialog box titled "New Project" with the subtitle "Step 1 : Specify the Project Name and its Location." It contains three input fields: "Project Name" with the value "XLR_Project", "Description" with the value "Customer or Site name", and "Project Location" with the value "c:\XLRprojects". There is a checkbox for "Project Off Line" which is unchecked. At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

Step 2

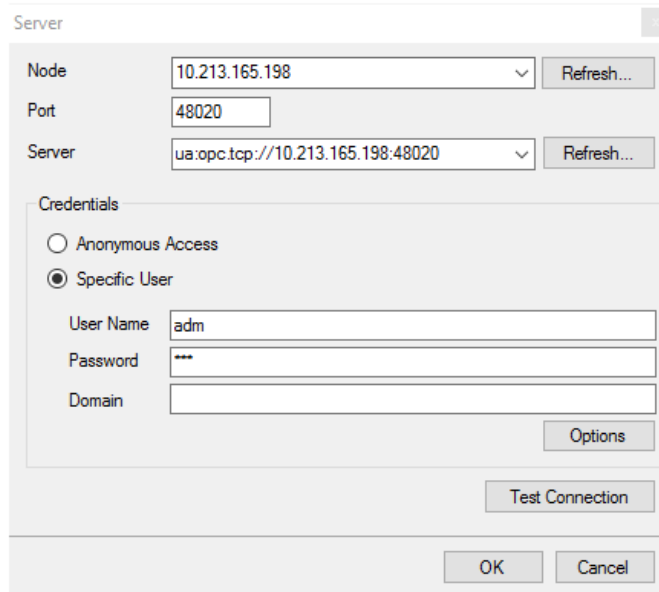
- Configure the data connector, click **Add**

The screenshot shows a dialog box titled "New Project" with the subtitle "Step 2 : Configure the Connectors (data sources) of the Project." It features a toolbar with a red-bordered "+ Add" button, a pencil icon for "Modify", a trash icon for "Delete", and a gear icon for "Catalog". Below the toolbar is a table with three columns: "Name", "Provider", and "Description". The first row is highlighted in blue and contains an asterisk "*" in the "Name" column.

Select OPC, OPC UA Real-time values

The screenshot shows a dialog box titled "OPC UA Real-time values" with a close button (X) in the top right corner. It contains several fields: "Connector Name" with the value "OPC_UA", "Description" (empty), "Primary Server" section with a "Name" field containing "ua.opc.tcp://10.213.165.198:48020" and a browse button (...), and a "Secondary Server" section with a "Name" field (disabled) and an unchecked checkbox. At the bottom, there are "OK" and "Cancel" buttons.

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



If the OPC UA server is running on a remote machine, set **Node** to the name or IP address of that machine.

Typically information about the **Port** number to use can be found in the OPC UA server settings.

The **Server** dropdown displays all the available servers based on the **Node** and **Port**.

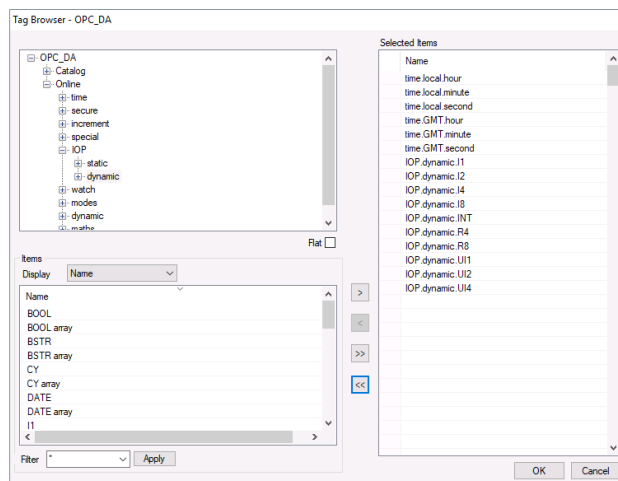
If the **Server** supports **Anonymous Access**, leave that selected, otherwise select **Specific User** and enter the credentials.

Click **Test Connection** to ensure connectivity. This may require an exchange of certificates between the client and the server. If prompted to exchange, click **Yes**. This action requires Windows administrator rights.

Verify Data Communication

To verify communication to the OPC UA Server, open the **Project Explorer** and select the **Tools** tab. Launch the **System Check** application.

- Click **Add**
- Choose the *OPC UA Server Connector* from the dropdown list,
- Click the pushbutton ([...]) next to Items to open the Tag Browser window.
- Select one or more tags, click **OK**



- Click **Start** to verify the communication

