

## Using XLReporter with Ignition 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.

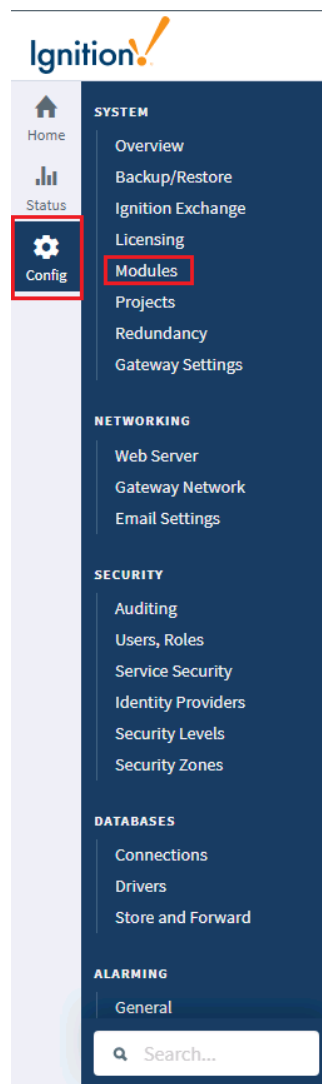
### Prerequisites

#### Verify OPC-UA Module

Ignition settings are available through a web browser. Open a web browser and navigate to:

*localhost:8088*

Log in to Ignition.



On the left, select **Config**, then under **SYSTEM** select **Modules**.

## Inductive Automation

View Certificate

Name	Version	Description	License	State		
Alarm Notification	5.0.7 (b2019122014)	Provides alarm notifications via email	Trial	Running	More ▾	restart
Allen-Bradley Driver	5.0.7 (b2019122014)	Allen-Bradley driver suite for the OPC UA module.	Trial	Running	More ▾	restart
DNP3 Driver	3.0.7 (b2019122014)	A driver supporting DNP3 (Distributed Network Protocol) device.	Trial	Running	More ▾	restart
Enterprise Administration	3.0.7 (b2019122014)	A remote Gateway administration system, allowing you to manage Gateways and automate tasks from a single controller.	Trial	Running	More ▾	restart
Logix Driver	4.0.7 (b2019122014)	A driver for communicating with Allen-Bradley Logix5000 series PLCs, and includes firmware version 21 support	Trial	Running	More ▾	restart
Modbus Driver	6.0.7 (b2019122014)	A driver for communicating with devices via Modbus-TCP.	Trial	Running	More ▾	restart
Omron Driver	3.0.7 (b2019122014)	A driver for Omron NJ series PLCs.	Trial	Running	More ▾	restart
OPC-UA	8.0.7 (b2019122014)	Provides Ignition's OPC UA client and server functionality.	Trial	Running	More ▾	restart
OpcCom	5.0.7 (b2019122014)	Bridge that exposes COM based OPC-DA servers to the system.	Trial	Running	More ▾	restart
Perspective	1.0.7 (b2019122014)	A module that provides modern, responsive html based graphical interfaces for Ignition projects.	Trial	Running	More ▾	restart
Reporting	5.0.7 (b2019122014)	Adds reporting capability.	Trial	Running	More ▾	restart
SFC	4.0.7 (b2019122014)	Sequential Function Charts are customizable logic execution environments.	Trial	Running	More ▾	restart

Make sure the **State** for the *OPC-UA* module is *Running*. If it is not, click the button to **Start**.

## 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

At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and '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, and Catalog.
- Table with columns: Name, Provider, and Description.
- Table content: A single row with an asterisk (\*) in the Name column.

## Select **Inductive Automation, Ignition Real-time values**

The connector requires a **Primary Server**. Click the browse pushbutton ([...]) for **Name** to define.

- For **Node**, if the server is on the same machine, leave as *local*, otherwise select or enter the name or IP address of the machine where the server is running.
- Depending on the version of Ignition, the default **Port** for the **Ignition OPC-UA** server is either *4096* or *62541*. This can be found in Ignition from **Config, OPC UA, Server Settings**.
- For **Server**, click **Refresh** and select from the list of server endpoints listed. If no endpoints are listed, in some versions of Ignition, the discovery server needs to be specified explicitly. To do so, for Port, append */discovery* and click **Refresh** again.
- If the server is set for **Anonymous Access**, leave that selected, otherwise select **Specific User** and enter valid credentials.
- Click **Test Connection** to verify connectivity.

## Trusted Clients

In some cases the client has to be accepted by the server to make requests. From within Ignition, select **Config, OPC UA, Security**.

Under the Server tab, in Quarantined Certificates, accept the client certificate listed.

## Remote Communication to Ignition OPC-UA

If Ignition OPC-UA is installed on a workstation remote from the PLC then set the **Node** to an item in the dropdown list or enter an *IP address*.

The workstation must also 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).

## Verify Data Communication

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

- Click **Add**.
- Choose the *Ignition OPC-UA 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.