

## Using XLReporter with Iconics GENESIS64 Real-time values

### Overview

This connector is used to get real time values from the GENESIS64 OPC Server.

### Prerequisites

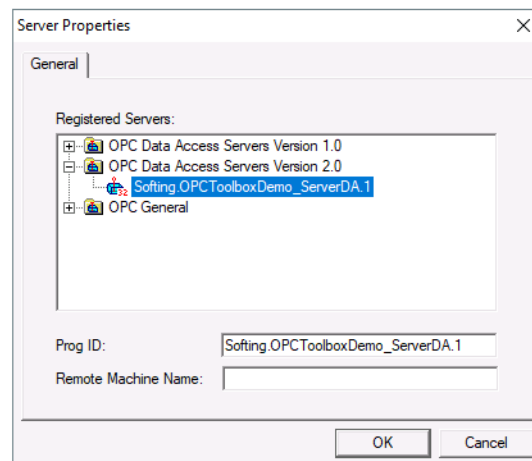
#### Verify Communication

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

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

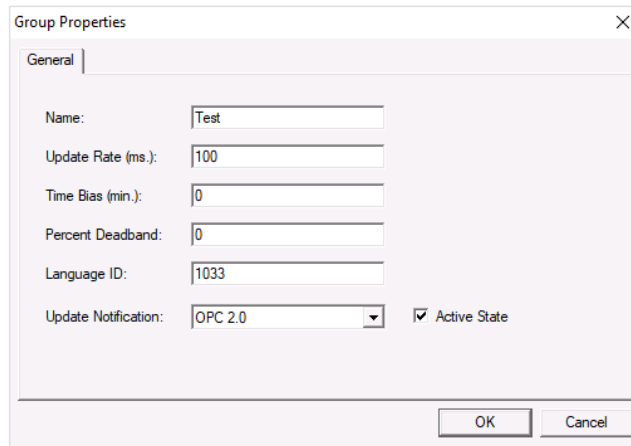
To run, double-click **SampleClientDA.exe**.

To connect to an OPC server, select **Edit, New Server Connection** to open the **Server Properties window**.



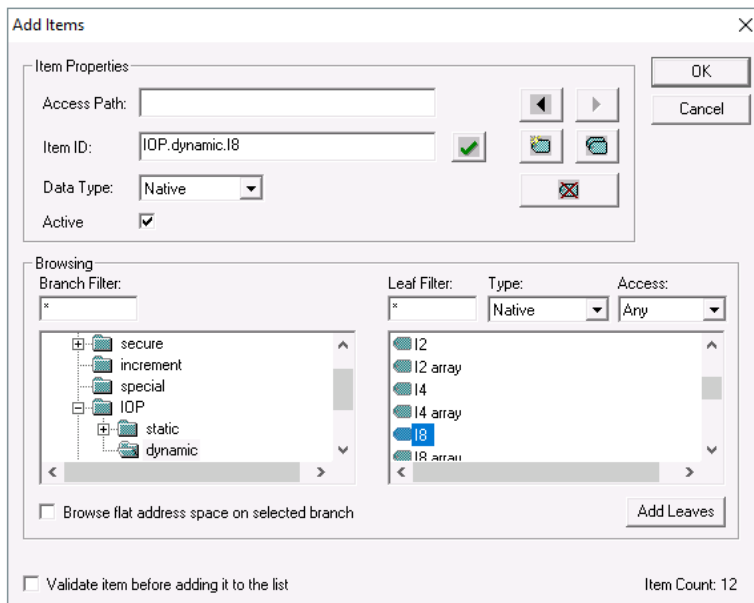
Expand the **OPC Data Access Servers Version 2.0**, select your OPC DA server and click **OK**.

From the **Edit** menu select **New Group**.



Specify **Name** and click **OK**.

Click on the group name created, and select **Edit, New Item**.



This opens the **Add Items** window. In the browsing section drill into the tree and select Leaf items on the right. For each leaf you want to view data for, click the Add Leaves button. Click **OK** when you have selected the tags to read.

The screenshot shows the OPC Quick Client interface. The main window displays a tree view on the left with a 'Test' group selected. The right pane shows a table of items with the following data:

Item ID	Data Type	Value	Timestamp	Quality
IOP.dynamic.DATE	Native	Unknown	15:18:37:410	Good
IOP.dynamic.I1	Char	-121	15:18:37:410	Good
IOP.dynamic.I1 array	Char Array	[-121, -120, -119, ...]	15:18:37:410	Good
IOP.dynamic.I2	Short	135	15:18:37:410	Good
IOP.dynamic.I4 array	Long Array	[135, 136, 137, 138...]	15:18:37:410	Good
IOP.dynamic.I8	Native	Unknown	15:18:37:410	Good
time.GMT.hour	Byte	20	15:18:22:708	Good
time.GMT.minute	Byte	18	15:18:22:708	Good
time.GMT.second	Byte	37	15:18:22:708	Good
time.local.hour	Byte	15	15:18:22:708	Good
time.local.minute	Byte	18	15:18:22:708	Good
time.local.second	Byte	37	15:18:37:083	Good

Below the table is an event log with the following entries:

Date	Time	Event
1/10/2020	3:15:54 PM	Connected to serv...
1/10/2020	3:16:27 PM	Added group 'Test...
1/10/2020	3:18:23 PM	Added 12 items to ...

The status bar at the bottom indicates 'Ready' and 'Item Count: 12'.

All of the selected tags appear along with their real time values, type, quality, and timestamp.

If the client does not respond as described, contact the OPC DA 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 DA 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](http://www.opcfoundation.org).

### Server Settings

In order to connect to an OPC DA 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 DA 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 DA 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

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: A single row with a yellow asterisk (\*) in the Name column.

Select **ICONICS, GENESIS64 Real-time values**.

The screenshot shows the 'GENESIS64 Real-time values' dialog box with the following fields and options:

- Connector Name:** GENESIS64\_DA\_1
- Description:** (empty field)
- Primary Server:**
  - Name:** ICONICS.FwxServerOPC.1
  - Node:** (empty field)  local
  - Test Connection** button
- Secondary Server:**
  - Secondary Server
  - Name:** ICONICS.FwxServerOPC.1
  - Node:** (empty field)  local
  - Test Connection** button
- Settings** button
- OK** and **Cancel** buttons

## Primary Server

These settings define the **Name** and **Node** of the OPC DA 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 the server is running.

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

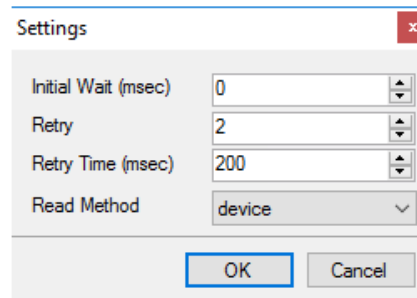
## Secondary Server

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

## Settings

The **Settings** button is used to update tuning parameters if there are issues retrieving data from this connector.

For more information on these settings, see the **OPC DA Real-time values** section in the **OPC** connector document.



Parameter	Value
Initial Wait (msec)	0
Retry	2
Retry Time (msec)	200
Read Method	device

## Verify Data Communication

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

- Click **Add**
- Choose the *GENESIS64 Real-time values* 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