

Elutions Connectors

ControlMaestro Real-time values

This connector is used to get real time values from ControlMaestro via the ControlMaestro OPC server.

Prerequisites

Verify Communication

Communication between the OPC server and an OPC client must be verified. 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.SmartSights.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 *Elutions.OPCDA.1* 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. To select a leaf, highlight and click the **Add Leaves** button. Click **OK** when selection is complete.

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

If at any point you experience an issue with this client, contact Elutions technical support to troubleshoot and correct these issues.

Remote Communication

If XLReporter is not installed on the machine where ControlMaestro is installed, the workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

- C:\Windows\SysWow64\OPCEnum.exe (64-bit OS)
- C:\Windows\system32\OPCEnum.exe (32-bit OS)

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

To connect to ControlMaestro 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](#).

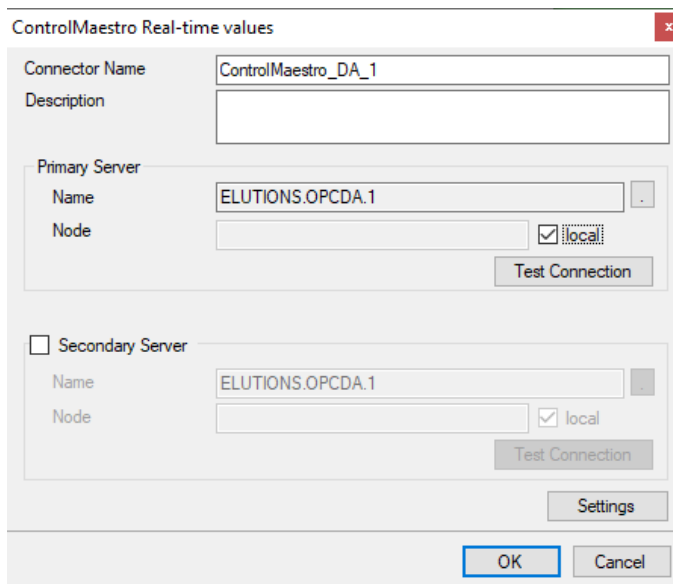
Windows Firewall

If the Windows Firewall is enabled on the machine where ControlMaestro is running **TCP Port 135** must be opened for remote clients to connect.

Connector

To configure the connector, from the **Project Explorer** select **Data, Connectors**.

- Click **Add**
- Select **Elutions, ControlMaestro Real-time values**
- Click **OK**



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 ControlMaestro is running.

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

Secondary Server

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

Settings

For information on the specific settings, see the **DATA CONNECTIVITY, OPC** document.

Verify Data Communication

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

- Click **Add**
- Choose the *ControlMaestro 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 and click **OK**
- Click **Start** to verify the communication

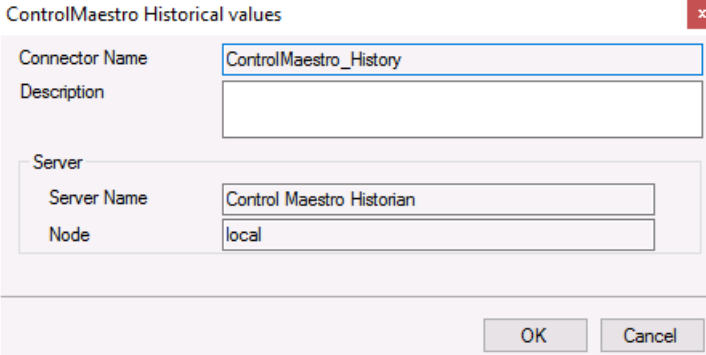
ControlMaestro Historical values

This connector is used to get historical values from ControlMaestro.

Connector

To configure the connector, from the **Project Explorer** select **Data, Connectors**.

- Click **Add**
- Select **Elutions, ControlMaestro Historical values**
- Click **OK**



The screenshot shows a dialog box titled "ControlMaestro Historical values". It contains the following fields:

- Connector Name:** ControlMaestro_History
- Description:** (empty text box)
- Server:** (grouped box containing)
 - Server Name:** Control Maestro Historian
 - Node:** local

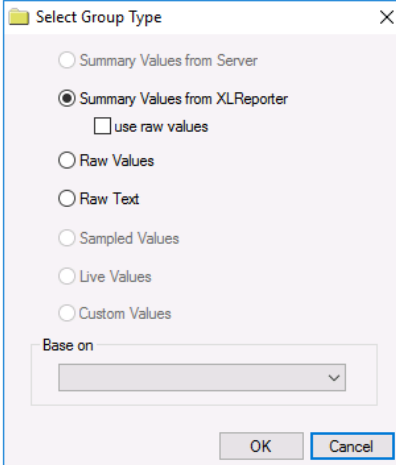
At the bottom right, there are "OK" and "Cancel" buttons.

Note that historical data may only be retrieved if **XLReporter** is installed on the same machine as the ControlMaestro historian.

Data Group

The following describes the historical data group settings specific to the **ControlMaestro Historical Values** connector.

Group Types



The screenshot shows a dialog box titled "Select Group Type". It contains the following options:

- Summary Values from Server
- Summary Values from XLReporter
 - use raw values
- Raw Values
- Raw Text
- Sampled Values
- Live Values
- Custom Values

Below these options is a "Base on" dropdown menu. At the bottom right, there are "OK" and "Cancel" buttons.

For **ControlMaestro Historical Values** the following group types are available:

Summary Values from XLReporter

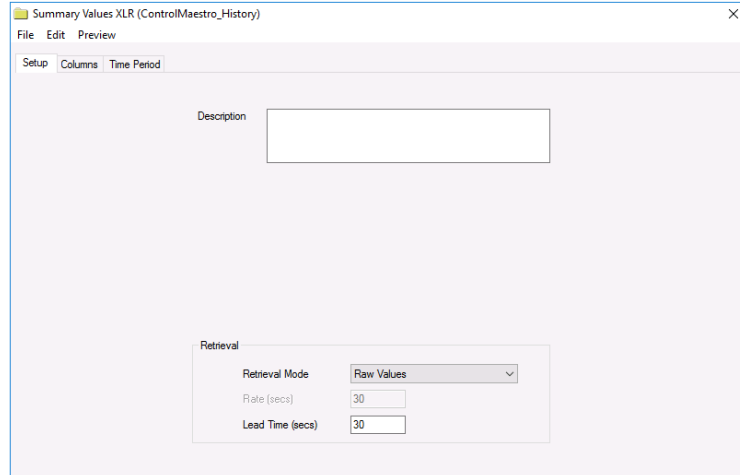
This group type retrieves raw values from ControlMaestro and performs calculations on those values for reporting.

By default, summary values are calculated time weighted, and values are propagated based on the last known value. However, to change this so that summary values are calculated strictly on the data returned check **use raw values**.

Raw Values

This group retrieves raw numeric values logged to the historian between the start and end time specified.

Group Settings Setup Tab



The **Retrieval** settings define how data is retrieved for the calculations selected for the group. The following settings are available:

- **Retrieval Mode**
This setting defines how data is retrieved from the historian. For ControlMaestro Historical Values, only *Raw Values* are available.
- **Lead Time**
The amount of time (in seconds) to retrieve data before the start time.

Verify the Data Connector

From the **XLReporter Project Explorer** select, **Tools, Connector Groups**.

Select the *ControlMaestro Historical values* 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**.

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