

Using XLReporter with the ProSoft PLX51-DLplus-232

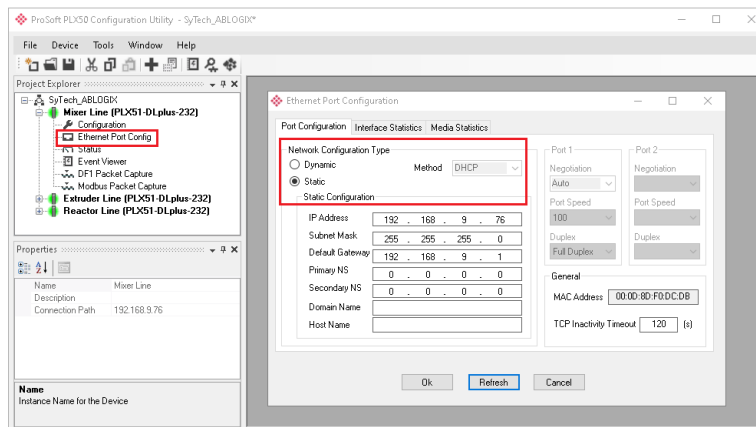
Overview

XLReporter monitors the data stored inside the Data Logger and continuously transfers new data to a permanent historical database. This extends the storage capacity from that on the device(s). Reports and dashboards are generated from the data in the historical database.

Configure Data Logging

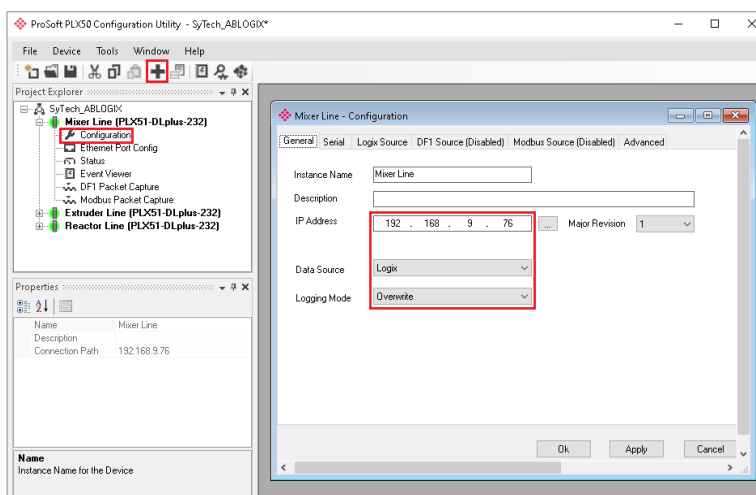
Configuration for the ProSoft Data Logger Plus is performed from the ProSoft PLX50 Configuration Utility. The information below briefly outlines the device configuration. For more detailed setup information, refer to the PLX51-DLPlus-232 User Manual. Both the configuration utility and device user manual are available on the official ProSoft website.

From the Configuration Utility:



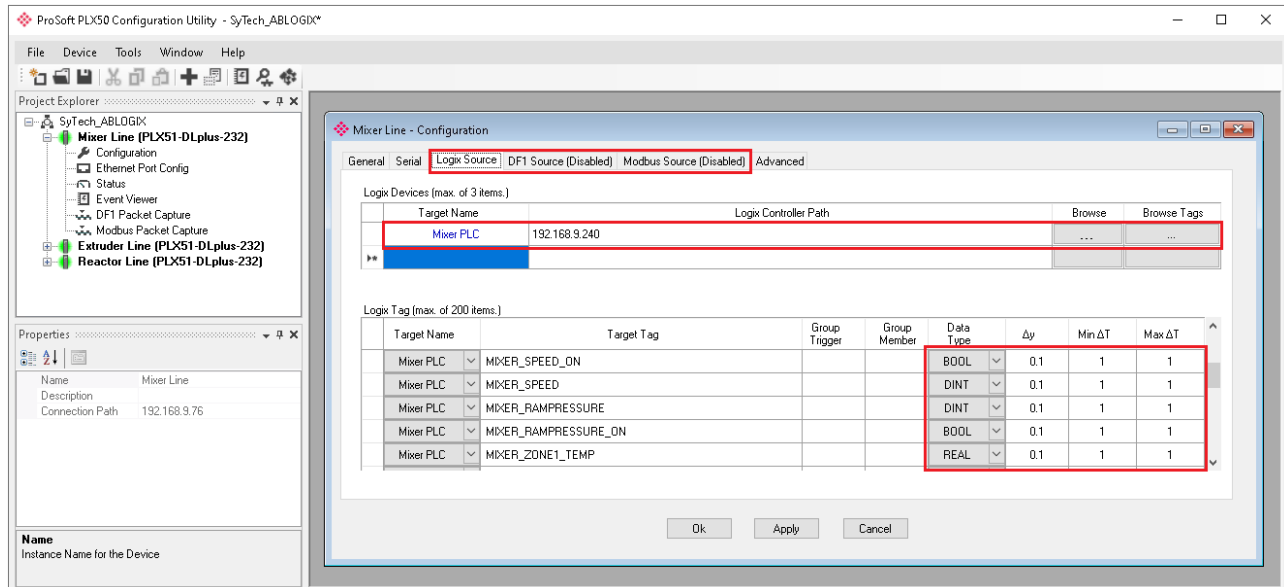
- Click the “+” button to add a new device.
- Select *PLX51-DLplus-232*.
- Open the **Ethernet Port Config** menu.
- Set the **Network Configuration Type** based on the network environment where the device is installed.

In the **Configuration** menu:



- Assign an **Instance Name** to indicate the nature of the data logged by the device. In this example, the configuration represents a production line which involves mixing machinery.
- Assign a **Data Source** based on the type of PLC connected to the Data Logger.
- It is recommended to set **Logging Mode** to *Overwrite* for continuous logging using XLReporter.
- Click **Apply**. Download the configuration to the device.

Based on the **Data Source**, open the corresponding **Source** tab in the Configuration menu. The below example shows configuration for an Allen-Bradley Logix PLC.



- Assign a **Target Name** which indicates the purpose of the connected PLC. In the above 192.168.9.240 is the IP address of the PLC.
- Open **Browse** to select the device using network discovery.
- Open **Browse Tags** to select the tags logged by the Data Logger.
- For each tag, assign the value deadband (Δy), minimum, and maximum timed rates at which the tag data is logged. It is recommended to configure logging resolution only as high as is required for reporting. Doing so optimizes the responsiveness of the reporting application.
- Click **Apply** and download the configuration to the device.

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 four buttons: '< 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.

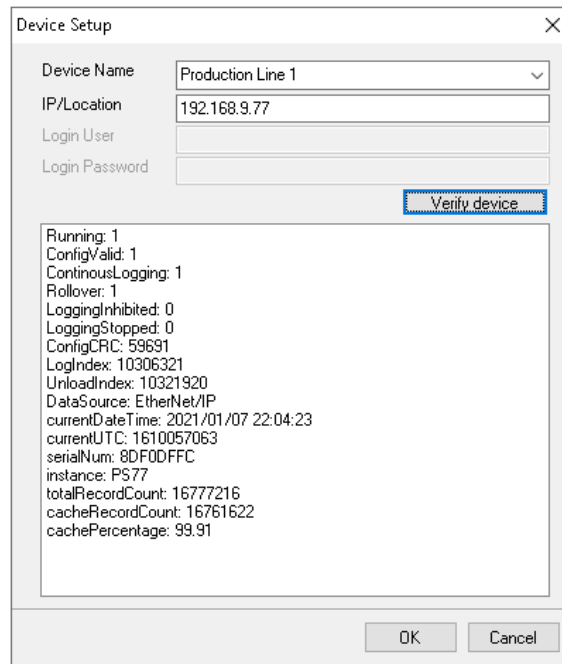
- Select **ProSoft, PLX51 Historical** values. One or more devices can be added to the connector for data transfer and reporting.

On the **Devices** tab

The screenshot shows the 'ProSoft PLX51 Settings' dialog box with the following elements:

- Connector Name:** C:\XLRprojects\XLR_Demo\Input\PLX51 Data Logger_1
- Buttons: **+ Add**, Modify, and Delete.
- Table with columns: Name and IP/Location.
- Table content: A single row with an asterisk (*) in the Name column.
- Buttons: Apply and Close.

- Click **Add**

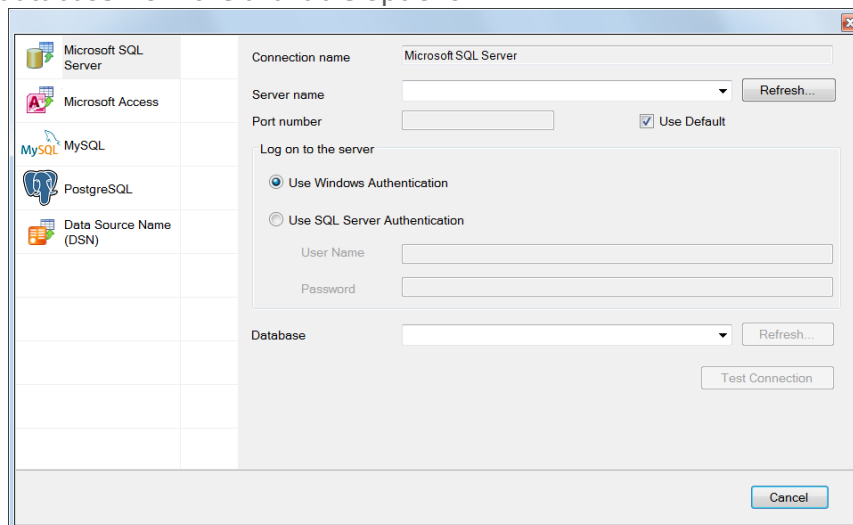


- Assign a **Device Name** for the Data Logger.
This name should reflect the purpose or location of the device.
- Enter the **IP/Location** the device on the network.
- Click **Verify Device** to validate the network connection.
This will connect to the device as present the current status of the device. If data logging is happening, the total record count will increase on subsequent clicks
- Repeat these steps for additional devices as necessary.
- Click **OK**

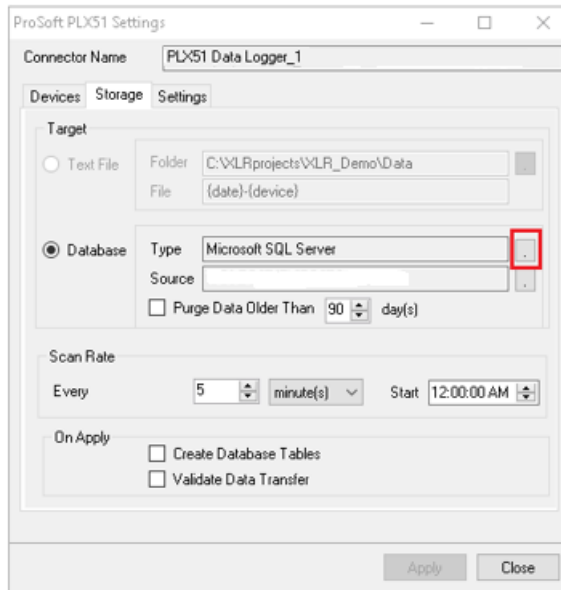
On the **Storage** tab

To configure storage for the data from the data logger(s).

- Click the browser [...] for **Database, Type**.
Select the database from the available options.

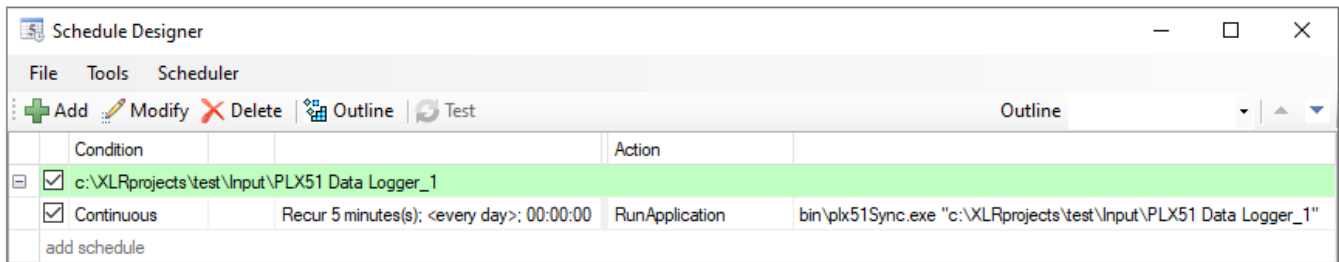


Click **Test Connection** to validate the connection



- To maintain the database size automatically, enable **Purge Data Older than X Days**.
- Configure the **Scan Rate**. This controls how often new data is transferred from the device(s) to the database.
- Check **Create Database Tables** to create new tables in the database. A display will appear to show progress. Note that this will overwrite any existing data that exists.
- Check **Validate Data Transfer** to transfer some information from the device to the database to confirm that everything is functional.
- Click **Close**.

As a consequence of the **Scan Rate** setting, a schedule is added to the **Schedule Designer**.

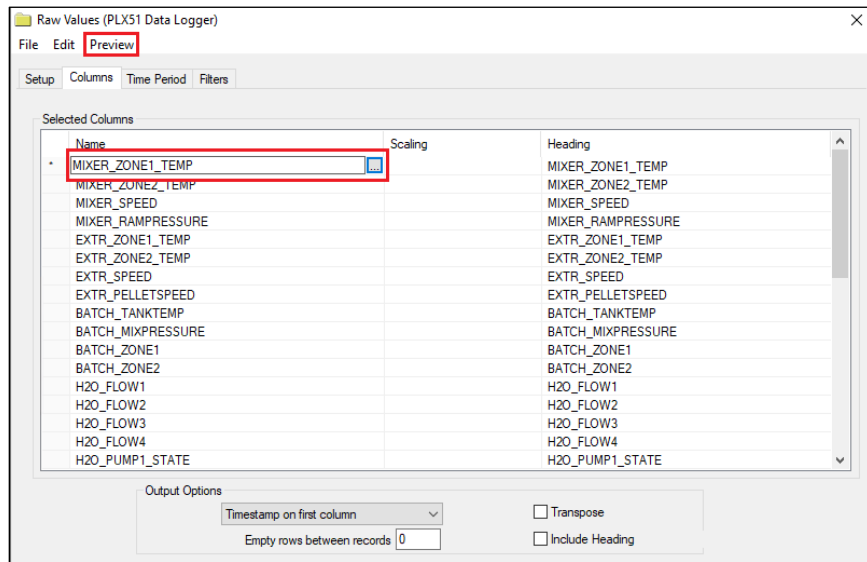


Verify the Data Connector

XLReporter retrieves data for a report using a **History Group**. A quick way to create a History Group is from the **XLReporter Project Explorer**.

- Select, **Tools, Connector Groups**
- Select the connector
- Select **Add**.
- Set the Type *Raw Values* and click OK.

On the **Columns** tab of the group, select the tag **Name(s)**.



From the menu bar

- Click **Preview**
- Enter a *Start* date
- Click **Refresh**.

Preview

Refresh Stop

Date

Start 21 Jan 2020

End 22 Jan 2020

Date	MIXER_ZONE1_TEMP	MIXER_ZONE2_TEMP
1/21/2020	74.1212158203125	74.1212158203125
1/21/2020 12:01:00 AM	80.1212158203125	76.1212158203125
1/21/2020 12:02:00 AM	16	75.321044921875
1/21/2020 12:03:00 AM	22	75.8381576538086
1/21/2020 12:04:00 AM	28	75.7197875976563
1/21/2020 12:05:00 AM	34	75.5581741333008
1/21/2020 12:06:00 AM	40	76.0077972412109
1/21/2020 12:07:00 AM	46	75.4261779785156
1/21/2020 12:08:00 AM	52	76.1543960571289
1/21/2020 12:09:00 AM	58	75.4110870361328
1/21/2020 12:10:00 AM	64	76.2080764770508
1/21/2020 12:11:00 AM	70	75.4759292602539
1/21/2020 12:12:00 AM	76	76.1795806884766

Rows 60