PLC Data Collector Instruction Manual

Create a new PLC connection:

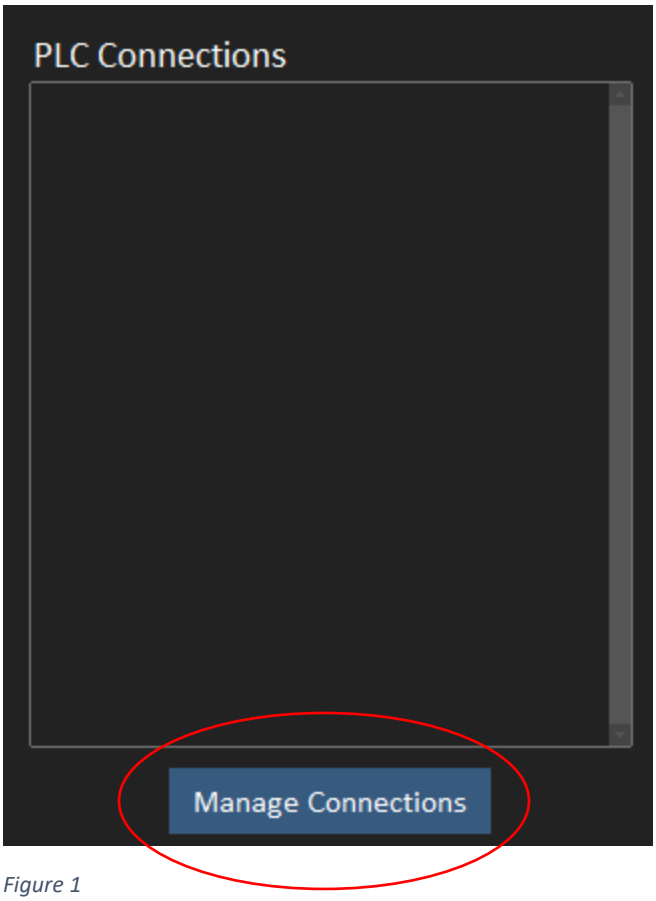


Figure 1

Click “Manage Connections” button to open Manage Connections window.

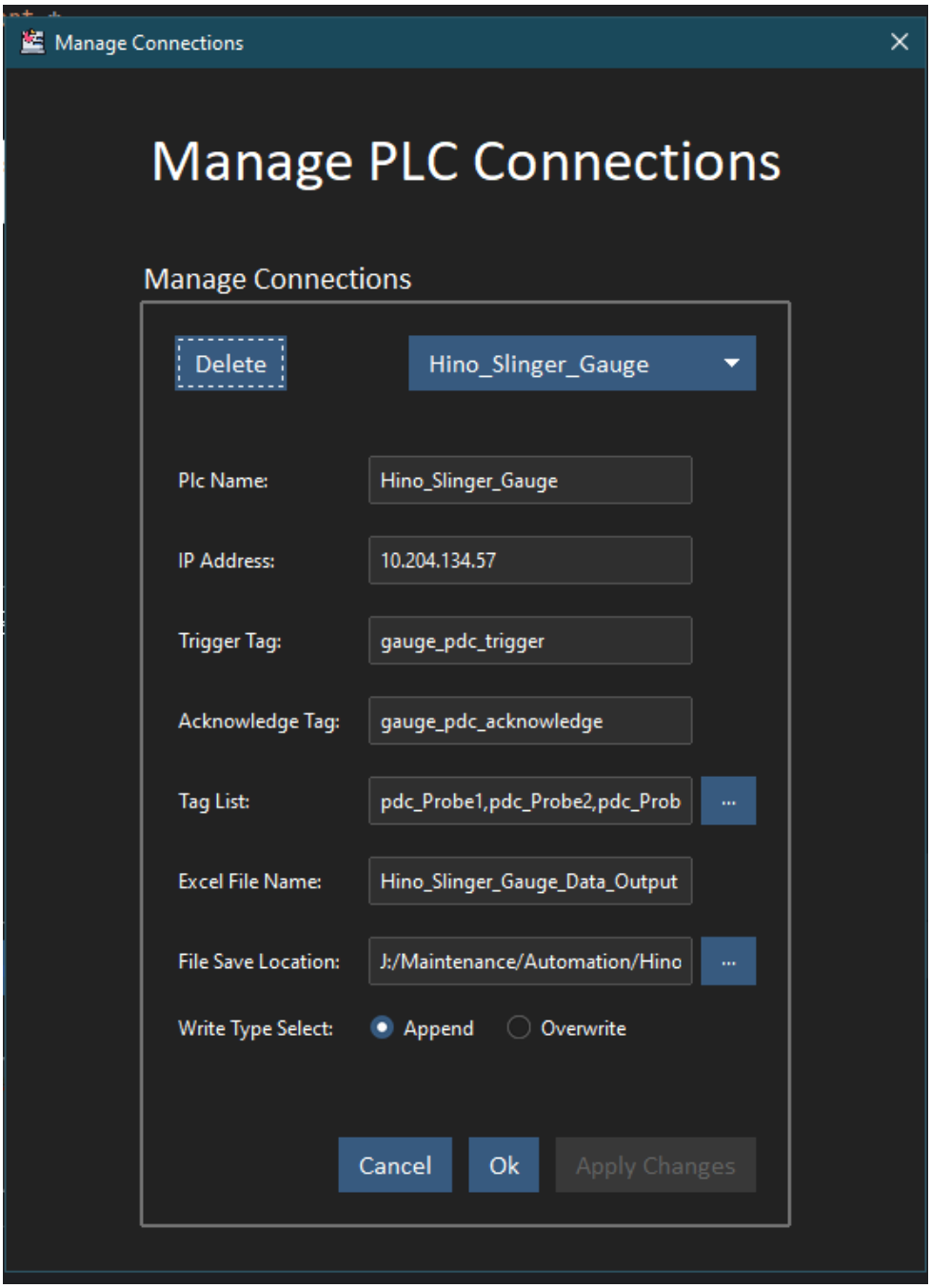


Figure 2

On this page you will fill in the required fields:

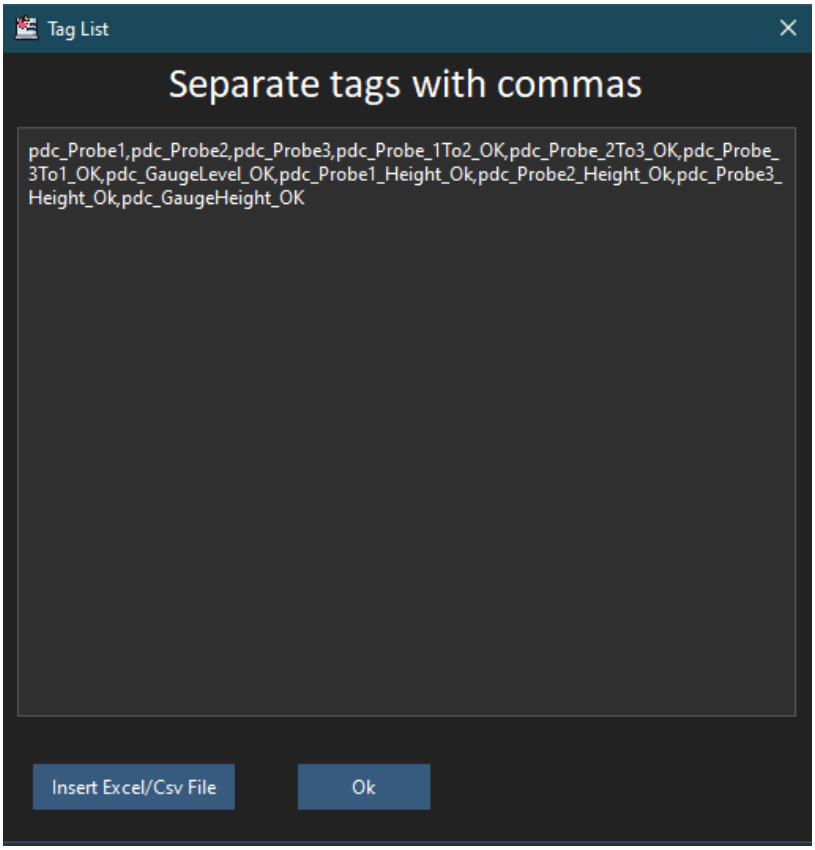
Plc Name: Name for your connection, example: “Hino_Slinger_Gauge”

IP Address: The IP address of the PLC

Trigger Tag: This will be the tag name of the trigger tag. When this tag is turned on in the PLC, the collection software will grab the data from the tags listed in “Tag List”

Acknowledge Tag: After the tag data has been collected the acknowledge tag will be turned on, this is like a handshake for the PLC to acknowledge it received the data.

Tag List: Enter the tags that you would like to collect data from. You must separate each tag with a comma. If you press the ... button it will bring up another window to better see all the tags. You can also import a excel file with tags separated by each row.



Excel File Name: Name of the excel file that will contain the data collected.

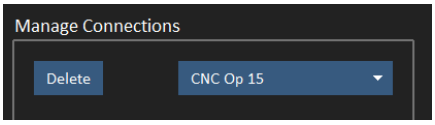
File Save Location: Location of the excel file will be saved to. Press ... to open browse.

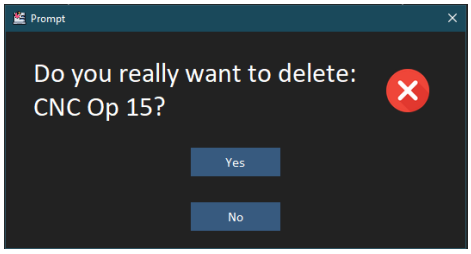
Write Type Select: *Append* means data will be added as a new row, *Overwrite* will just keep writing over the same row.

After filling in all the fields press Ok or Apply Changes, if there is a problem with syntax there will be a warning.

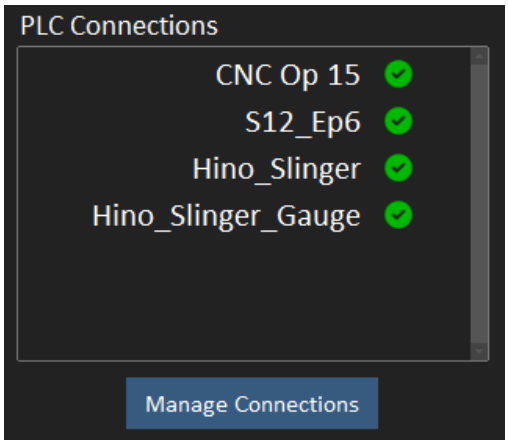
Delete a Connection

If you want to delete a PLC connection, make sure it is selected in the drop down menu, and then press Delete, a prompt will ask you if you are sure.





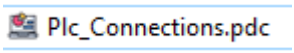
Connection List:



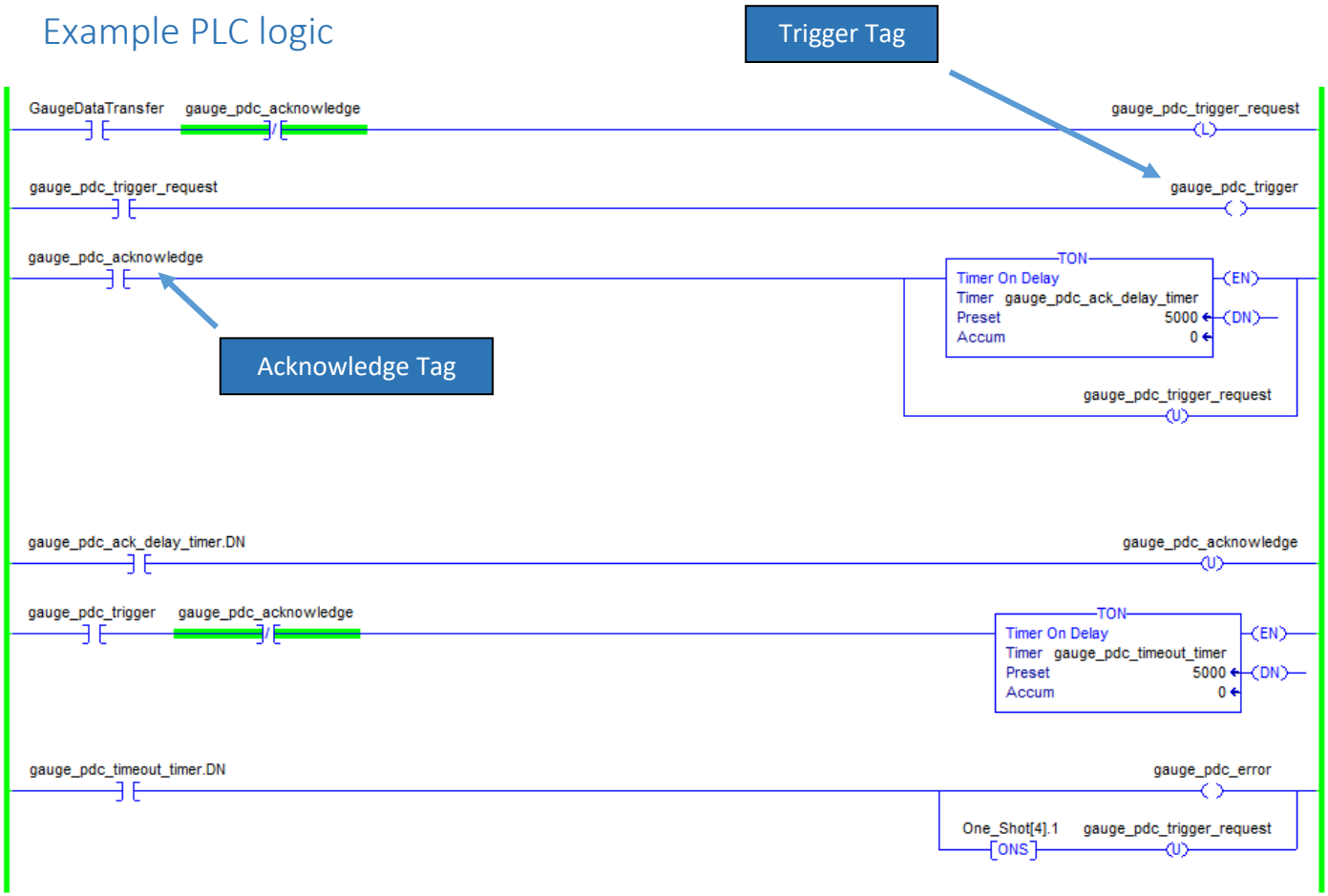
After creating the connection it will become visible in the list, the indicator  will indicate if software is able to connect to the PLC. If it cannot it will show: 

Save and Open a connection file (used for storing connection settings)

To save a file press the File menu and select save or save as

File type used for PLC Data Collector is .pdc Example file: 

Example PLC logic



Explanation:

There is a need to program some logic on the PLC side to ensure we are only collecting data during certain conditions.

When gauge_trigger_request is latched on it will turn on the gauge_pdc_trigger which will be detected by the Data Collector software. Once the Data Collector has finished collecting the tag data it will latch on the gauge_pdc_acknowledge bit, which will turn off the trigger and trigger request. If we do not get the acknowledge signal within a period of time then the gauge_pdc_error bit will turn on indicating issue with connection. After a period of time we turn off the acknowledge bit to prepare for next data transfer.

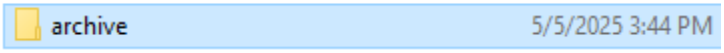
This is just an example you may use any tag names you want. Just make sure it matches the tag name you specified in the Data Collector software.

Example Excel File output:

	A	B	C	D	E	F
1	**Timestamp**	**pdc_Probe1**	**pdc_Probe2**	**pdc_Probe3**	**pdc_Probe_1To2_OK**	**pdc_Probe_2To3_OK**
2	2025-04-29 21:42:37	0.022499999	-0.096000001	0.014	TRUE	TRUE
3	2025-04-29 21:45:16	0.033500001	-0.071499996	0.030499998	TRUE	TRUE
4	2025-04-29 22:04:38	0.0085	-0.081500001	0.012999999	TRUE	TRUE
5	2025-04-29 22:05:22	-0.052499998	-0.033999998	0.052999999	TRUE	TRUE

Archive Files:

An archive folder will be automatically created in the same location specified for the Excel file.



There will be a new excel file created for each new day as a backup.