



Historian



access



analyse



store



Constantly sourcing, producing
and updating your data

Stored securely

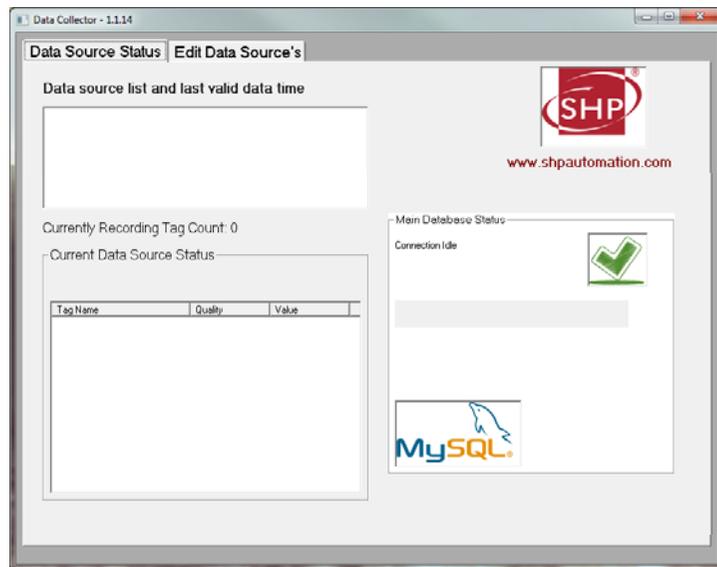
Easy, secure
access

Import data direct
to Excel

Example System Overview



Data picked up by Data collector program



Data inserted to database

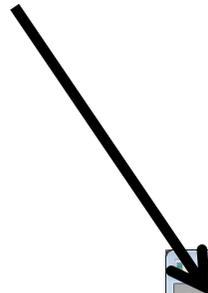


Web server allows access easy access to data



Data collector Overview

Active data source list



Data Collector - 1.1.14

Data Source Status Edit Data Source's

Data source list and last valid data time

Modbus Test - 2014/Jun/10 11:15:14

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Currently Recording Tag Count: 3

Current Data Source Status

Tag Name	Quality	Value
1200_Pot1	Good	78.5952
1200_Pot2	Good	53.71817
1200_Temperature	Good	23.66537

Main Database Status

Connection Idle

Current queue:0

Database: Idle

MySQL

Active Tag List
and status

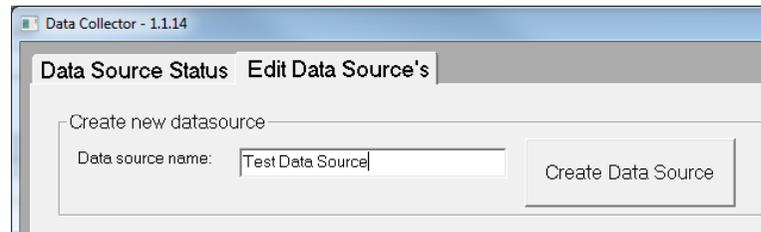


Database
link status

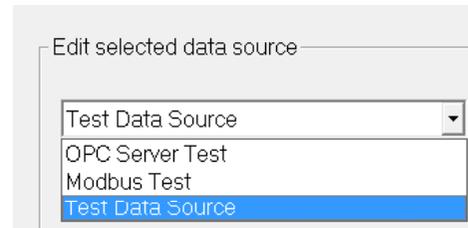


Data collector Editor

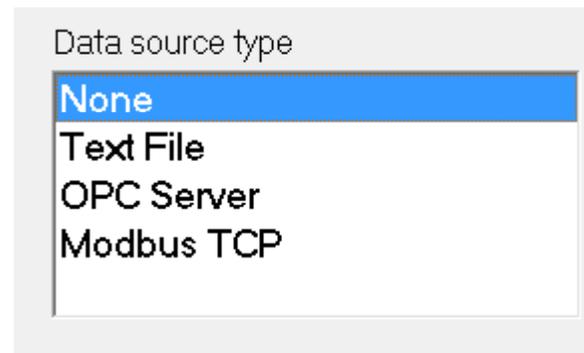
Create a Data source



Select new Data source



Select Type of data input



Data collector text file

Text File

(Text file expected to be overwritten constantly with new data, and be in the correct format, actually a legacy feature)

Edit selected data source

Test Data Source ▼

Data source type

- None
- Text File**
- OPC Server
- Modbus TCP

Data Source File Location

Inactive *De-activate data source to allow editing*

Delete Data Source

Data collector OPC Editor

Leave server IP address
blank for local computer

Select which OPC server
you want to use,
then press select

This is the currently
selected server

Edit selected data source

Test Data Source

Select OPC Server

OPC Server Address

Refresh List

Matrikon.OPC.Simulation
Matrikon.OPC.Simulation.1
National Instruments.OPCDemo

Select

Current Selected Server

Matrikon.OPC.Simulation

OPC Server Editor

Data source type

None
Text File
OPC Server
Modbus TCP

Inactive

Deactivate data source to allow editing

Delete Data Source

Once Selected, click here to open the full OPC editor

Data collector OPC Editor

OPC has 2 parts, you must add a group of tags that you want to see values of
And the server browser part, where you pick the tags you want

The screenshot shows the 'Editing OPC Data source: Matrikon.OPC.Simulation' window. The interface is divided into two main sections, both highlighted with blue rounded rectangles. The top section, labeled 'OPC Group and Live Tags', contains a 'Server Properties' tab with an 'Add Group' button and a text input field. Below this is a 'Group Save Interval (ms)' field with a 'Save' button. A table with columns 'Item ID', 'Value', 'Quality', and 'Timestamp' is present, with a 'Delete Item' button to its right. A green highlight is over the text 'Updating Data' above the table. The bottom section, labeled 'Tag Browser', features a 'Manual Item Entry' field, a 'Data Type' dropdown menu set to 'Native', an 'Add To Group' button, and an 'Activate Browser' button. Arrows point from the external labels to these sections. A large arrow also points from the 'Add To Group' button back to the table in the top section.

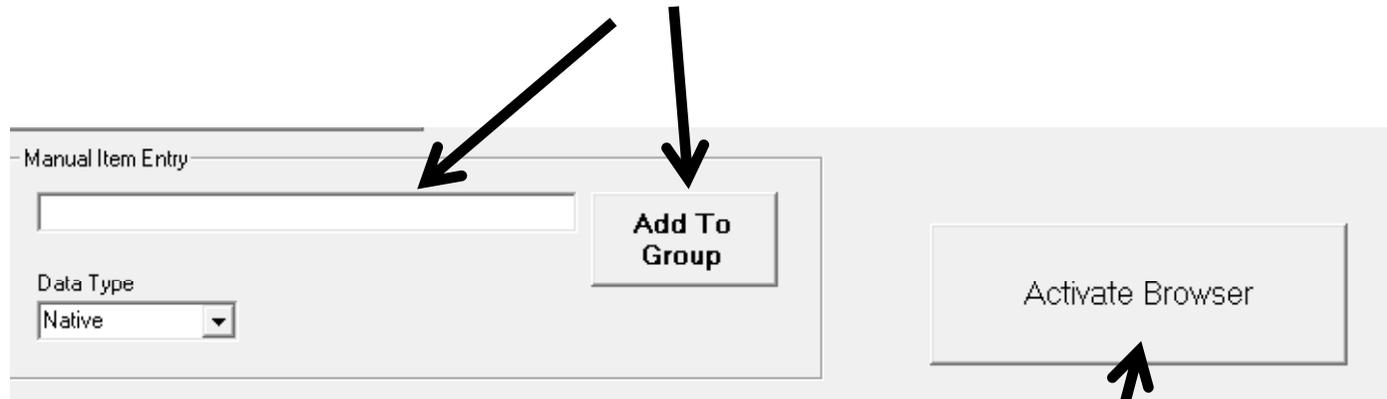
OPC Group and Live Tags

Tag Browser

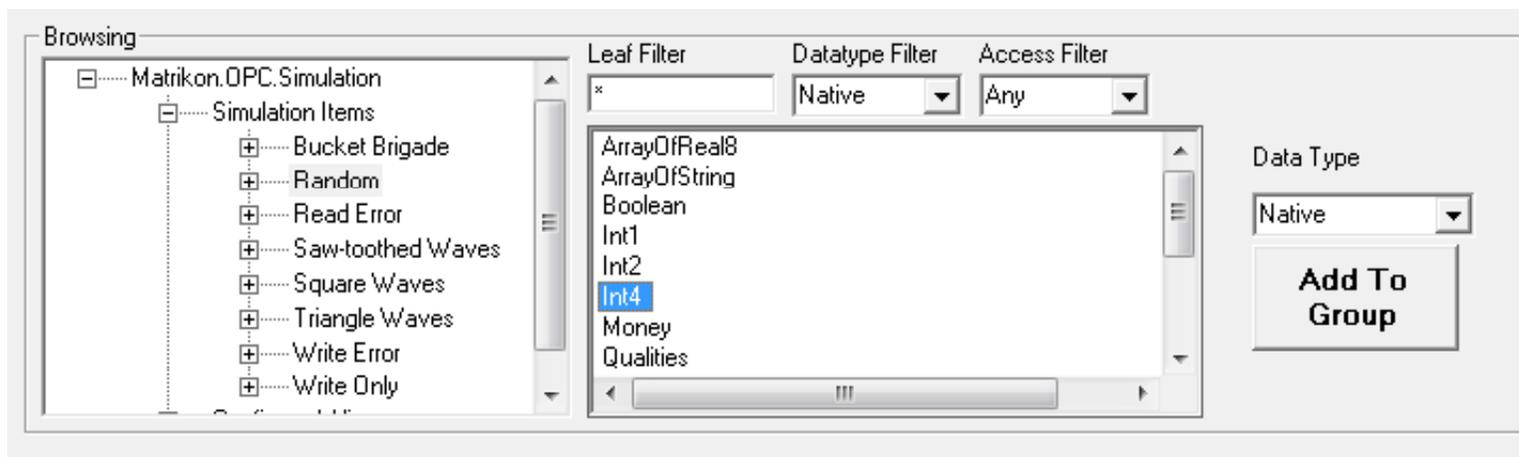
and add selected tag to the current selected group

Data collector OPC Editor

Because the browser part of the OPC server may not always work (DeltaV)
The editor defaults to the manual tag entry, you must know what the tag is, before you add it to the group



You can attempt to load the browser by clicking here
If successful, it will now look like this



Data collector OPC Editor

Shows current tags in group

The screenshot shows the 'Editing OPC Data source: Matrikon.OPC.Simulation' window. It features several sections: 'Server Properties' at the top, a group management area with 'Add Group' and 'Delete Group' buttons, a 'Group Save Interval (ms)' field set to 1000, and a list of groups with 'Test' selected. A table titled 'Updating Data' is visible, with columns for 'Item ID', 'Value', 'Quality', and 'Timestamp'. A 'Delete Item' button is to the right of the table. At the bottom, there is a 'Browsing' section with a tree view of simulation items and a 'Data Type' selection area with an 'Add To Group' button. Annotations with arrows point to the 'Add Group' button, the 'Group Save Interval' field, and the 'Test' group in the list.

Add a group

Set the current group update interval *

Select current group

Item ID	Value	Quality	Timestamp
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Updating Data

Slow double click to edit

Delete Item

Delete Group

Browsing

- Matrikon.OPC.Simulation
 - Simulation Items
 - Bucket Brigade
 - Random
 - Read Error
 - Saw-toothed Waves
 - Square Waves
 - Triangle Waves
 - Write Error
 - Write Only

Leaf Filter: * Datatype Filter: Native Access Filter: Any

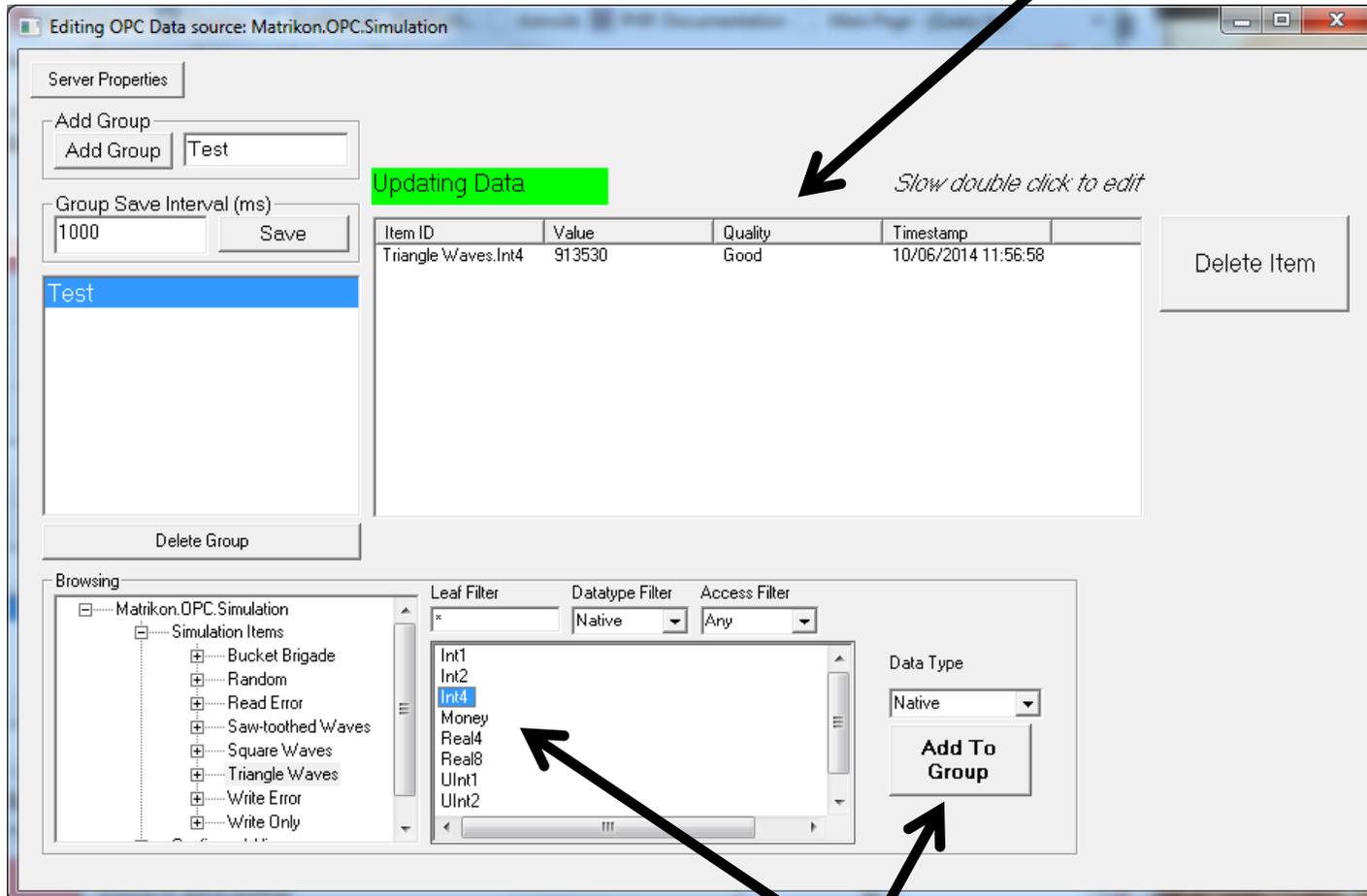
Data Type: Native

Add To Group

* You should make different groups for different intervals

Data collector OPC Editor

Current group status



Select item, click to group

Data collector OPC Editor

Tag name, to change it, you must “slow” double click on each tag

Updating Data *Slow double click to edit*

Item ID	Value	Quality	Timestamp	
Triangle Waves.Int4	876495	Good	10/06/2014 12:43:40	

Not Updating Data *Slow double click to edit*

Item ID	Value	Quality	Timestamp	
tag_number_10	604905	Good	10/06/2014 12:44:12	

You can now type in whatever tag you like

Data collector Modbus TCP Editor

The Data Collector program can act as a Modbus master (to a Modbus slave device over Ethernet)

Enter IP Address to the target device

The screenshot shows a dialog box titled "Edit selected data source". On the left, a dropdown menu is set to "Modbus Test". Below it, a sub-section titled "Modbus TCP" contains two input fields: "Modbus TCP IP Address (of Slave)" with the value "192.168.2.20" and "Port Number (Default 502)" with the value "502". To the right of this section is a "Data source type" list with options: "None", "Text File", "OPC Server", and "Modbus TCP" (which is highlighted in blue). At the bottom center of the dialog is a button labeled "Edit Register Sets". Three black arrows point to the "Modbus Test" dropdown, the "Port Number" input field, and the "Edit Register Sets" button.

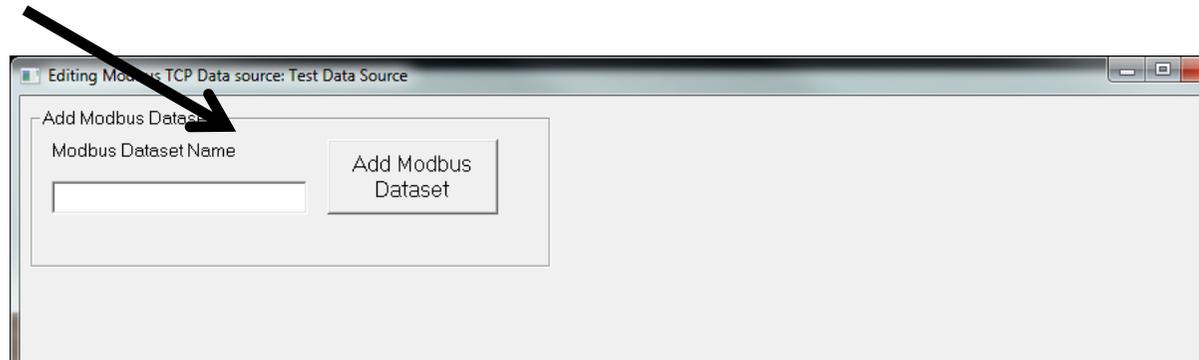
Optionally change the port number if you like
(this is the TCP port number on the target device)

Click here to open the full Modbus TCP editor

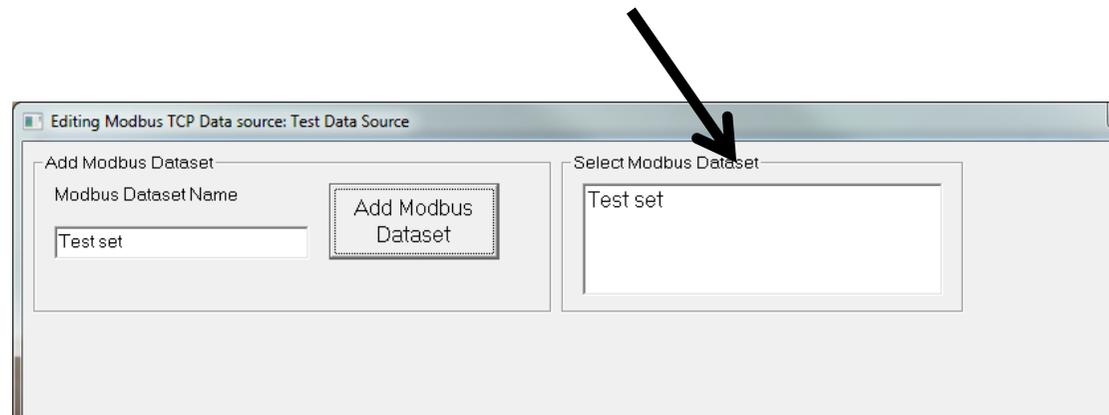
Data collector Modbus TCP Editor

Create a Modbus register set, you can name them however you like, and make as many as you want

Type Name and Click add



Select the new dataset



Data collector Modbus TCP Editor

The screenshot shows the 'Editing Modbus TCP Data source: Test Data Source' window. It is divided into several sections:

- Add Modbus Dataset:** Contains a text input field with 'Test set' and an 'Add Modbus Dataset' button.
- Select Modbus Dataset:** A list box containing 'Test set' which is highlighted in blue.
- Edit Selected Modbus Dataset:** This section is further divided into:
 - Dataset Type:** A dropdown menu set to 'Bit'.
 - Byte Order (High/Low):** A dropdown menu set to 'A-B-C-D (Straight)'.
 - Unit ID Number (default 1):** A text input field containing '1'.
 - Function code:** A dropdown menu set to 'Read holding Registers (3)'.
 - Start Register Number:** A text input field containing '0'.
 - Number of Registers:** An empty text input field.
 - Select Register:** A table with columns 'Address', 'Tag Name', and 'Interval'. The table is currently empty.
- Delete Modbus Dataset:** A button labeled 'Delete Modbus Dataset' at the bottom of the window.

Annotations with arrows point to the following elements:

- 'Set these how you like' points to the Dataset Type, Byte Order, Unit ID Number, and Function code fields.
- 'Set your starting register number and the amount of registers you want' points to the Start Register Number and Number of Registers fields.
- 'Delete the current dataset' points to the Delete Modbus Dataset button.

Data collector Modbus TCP Editor

Editing Modbus TCP Data source: Test Data Source

Add Modbus Dataset

Modbus Dataset Name

Test set

Add Modbus Dataset

Select Modbus Dataset

Test set

Edit Selected Modbus Dataset

Dataset Type

Float/Real/Single (32bit)

Byte Order (High/Low)

A-B-C-D (Straight)

Unit ID Number (default 1)

1

Function code

Read holding Registers (3)

Start Register Number

0

Number of Registers

3

Select Register

Address	Tag Name	Interval
0		
2		
4		

Delete Modbus Dataset

Delete Modbus Dataset

Register will appear here
now you must add a tag and interval to each one
Select each register

Data collector Modbus TCP Editor

Click a register

Editing Modbus TCP Data source: Test Data Source

Add Modbus Dataset

Modbus Dataset Name

Test set

Add Modbus Dataset

Select Modbus Dataset

Test set

Edit Selected Modbus Dataset

Dataset Type

Float/Real/Single (32bit)

Byte Order (High/Low)

A-B-C-D (Straight)

Unit ID Number (default 1)

1

Function code

Read holding Registers (3)

Start Register Number

0

Number of Registers

3

Select Register

Address	Tag Name	Interval
0	tag_number_1	30
2		
4		

Edit Register:0

Tag Name

tag_number_1

Record Interval (Sec)

30

Save Changes

Delete Modbus Dataset

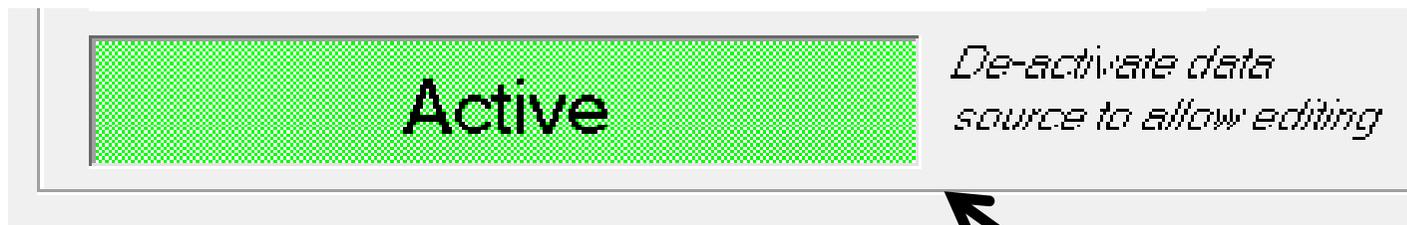
Delete Modbus Dataset

you can edit its tag and recording interval pressing save will save the tag and interval

Click to activate data source and start recording



(Data source is not active, you can edit)



(Data source is active, you can not edit)

In this example, the OPC data source is reporting the wrong time
(the date and time is from the OPC server)

Data Collector - 1.1.14

Data Source Status Edit Data Source's

Data source list and last valid data time

OPC Server Test - 2014/Jun/10 09:53:18
Modbus Test - 2014/Jun/10 10:53:16

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Currently Recording Tag Count: 4

Current Data Source Status

Tag Name	Quality	Value
1200_Pot1	Good	78.59882
1200_Pot2	Good	53.73988
1200_Temperature	Good	22.72678
test	Good	-87

Main Database Status

Connection Idle 

Current queue:0

Database: Idle

MySQL