

Integration of BioPAT® Trace Into the DasGip Control System



Technical Note

Scope

A step by step guide to enable the connection and transfer of data and measurement parameters from the BioPAT® Trace to the DasGip SCADA control software. Utilizing the BioPAT® Trace OPC® DA Server interface sourced from softing in order to create this interface with a guide to how to configure the software for data transfer.

Introduction

First of all, BASF SE would like to thank Sartorius and Eppendorf (DasGip) for their kind cooperation. If they had not provided the software and contacts it would not have been possible to link the BioPAT® Trace software and the DasGip Control system.

We took further information for the installation from the Sartorius (Manual_BioPATTrace_SLL6006.pdf) and DasGip (DASware_analyze_Addendum.pdf) user and operation manuals.

In this connection method a standard OPC® from Softing was adapted in corporation with Sartorius. OPC® is the standard for interoperable data exchange between software applications and analytical devices of different vendors. Thus, OPC® enables seamless data transfer from one application to another and harmonizes your automation environment.

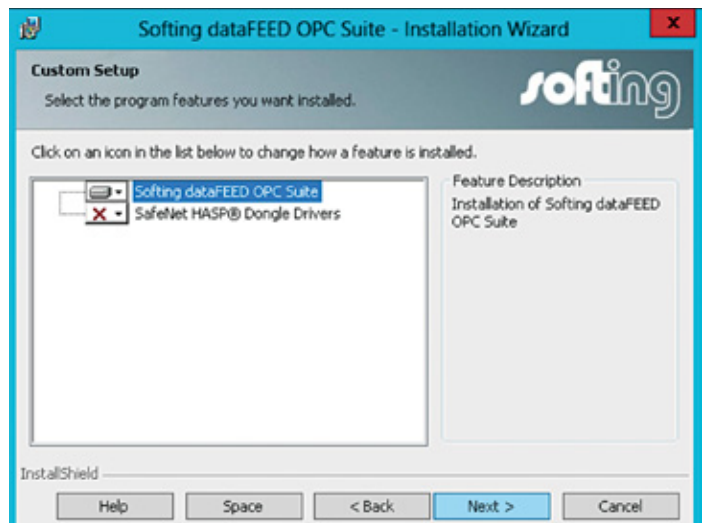
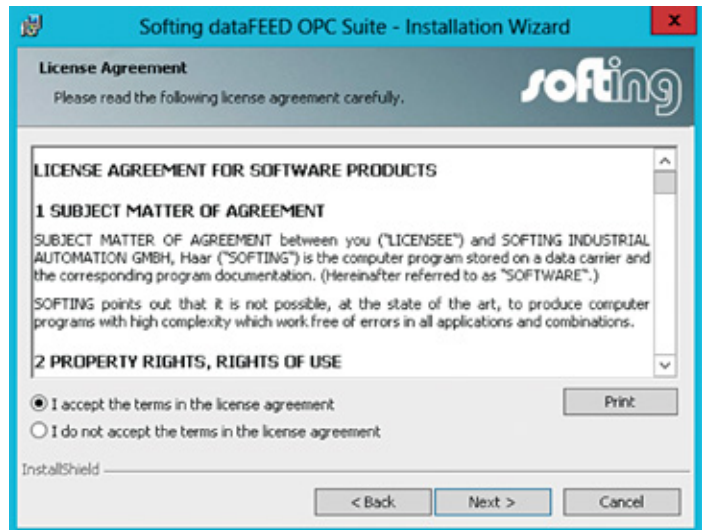
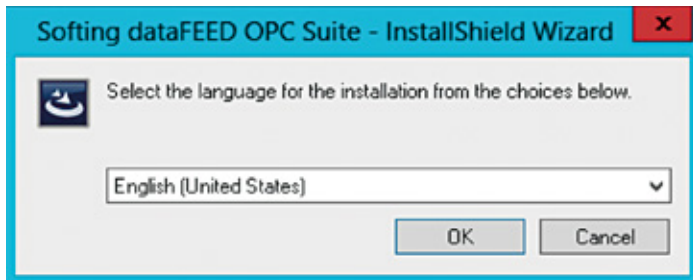
Executive Summary

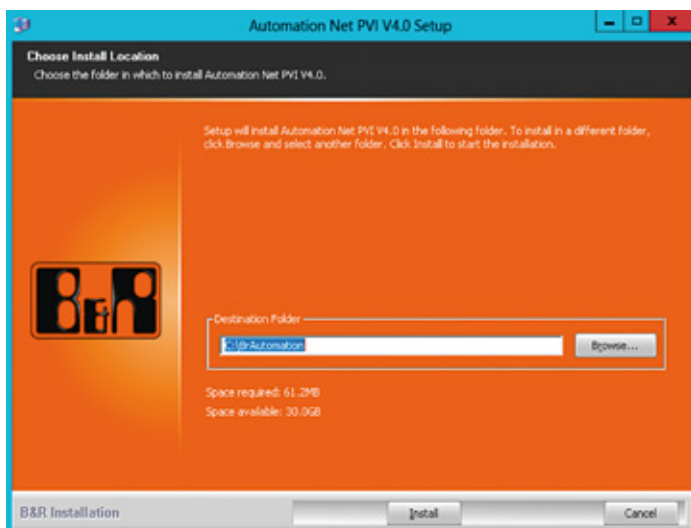
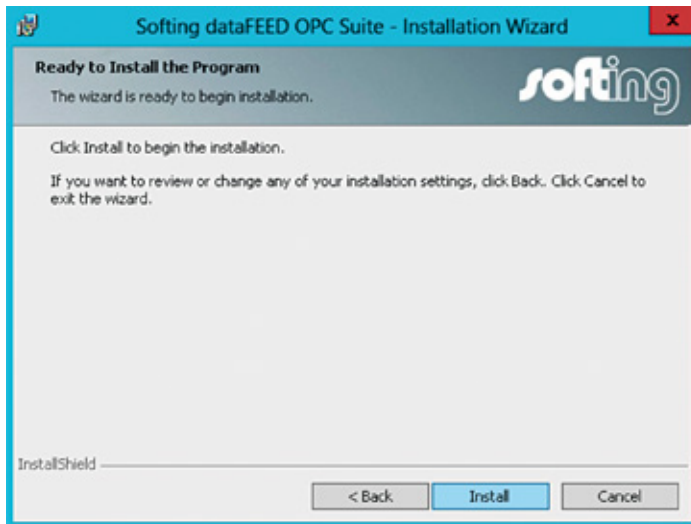
This document gives a short summary of how to carry out the integration of the BioPAT® Trace and the DasGip control software. The screenshots and step by step guide have been provided by Sartorius and BASF SE.

Installation of the Softing OPC® Suite

The full version of the Softing “Data Feed OPC® Suite” provided by Sartorius includes the “OPC® Modbus Server” and the “OPC® Client” OPC® Explorer. The values output by BioPAT® Trace are passed on via the server. The OPC® Explorer is necessary in order to display the data required by the DasGip Control system.

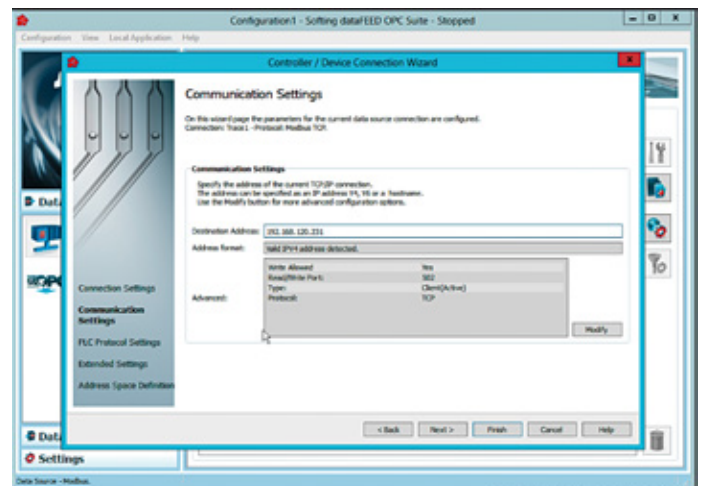
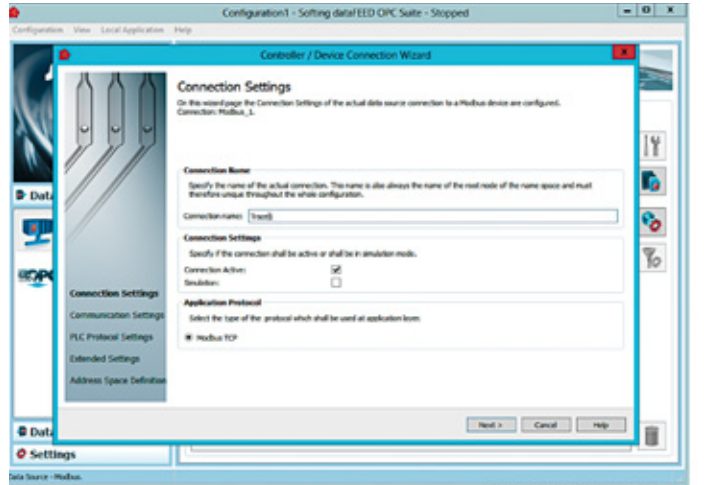
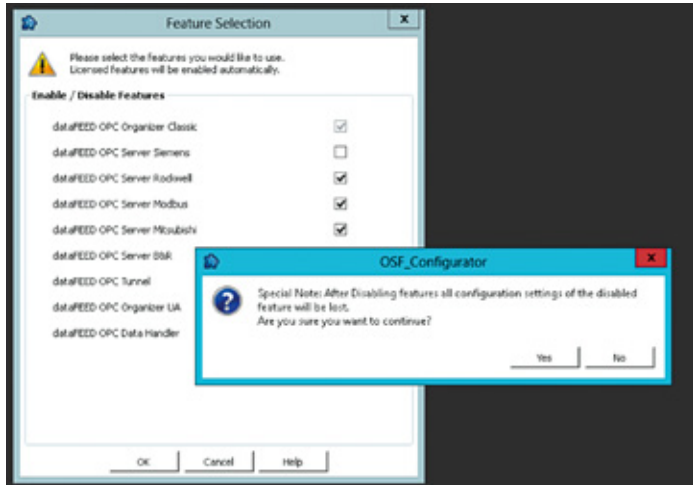
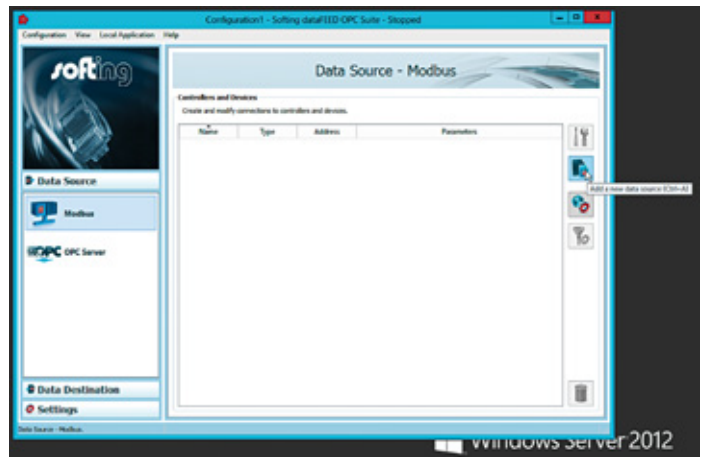
Start up “Softing dataFEED OPC Suite.exe” and follow the installation process as in the screenshots below.

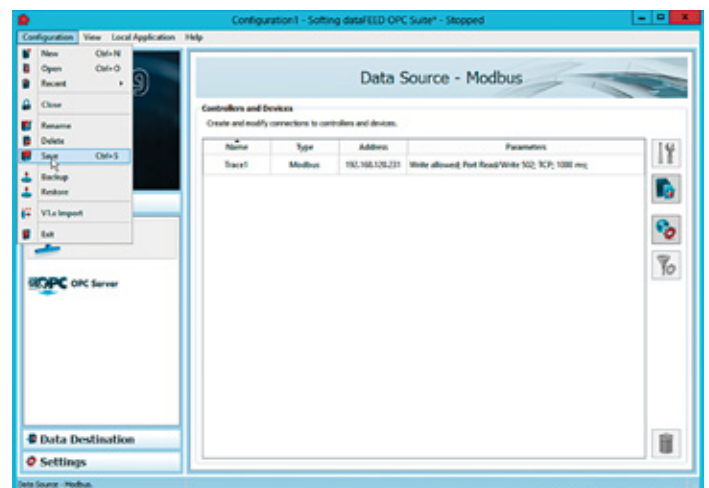
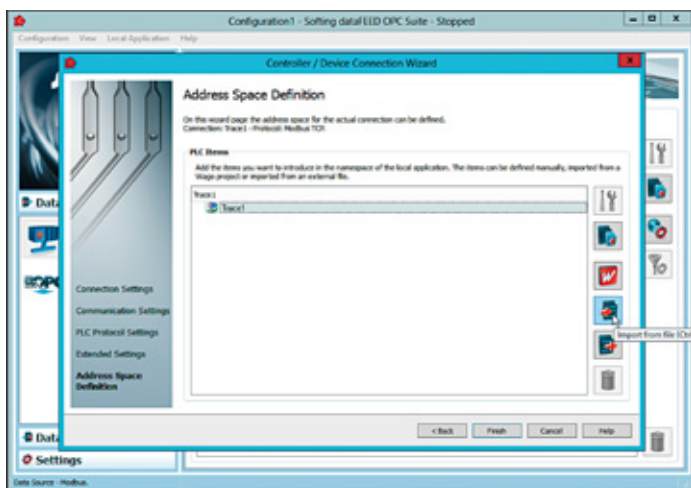
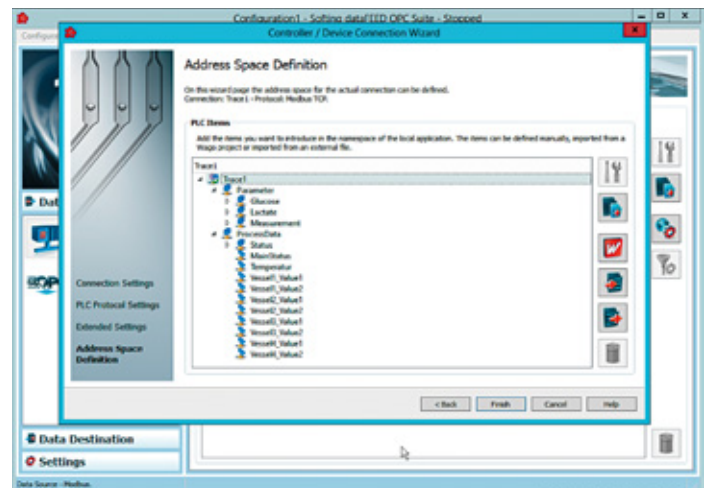
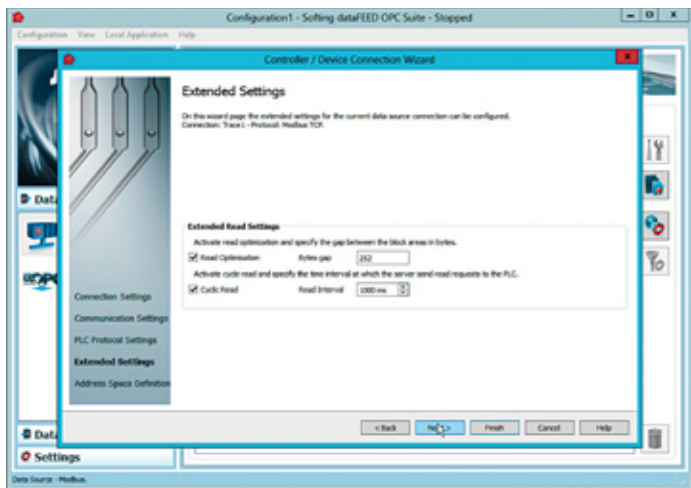
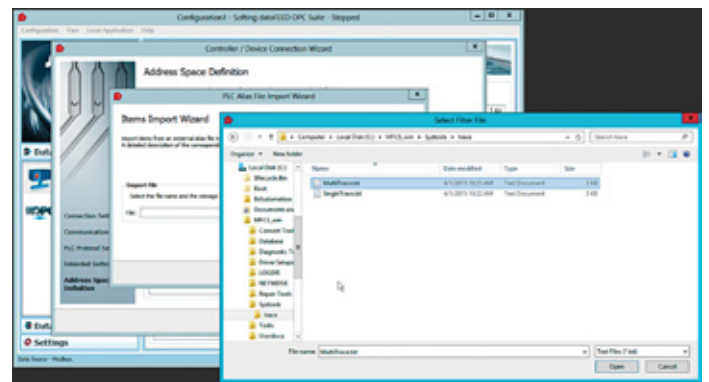
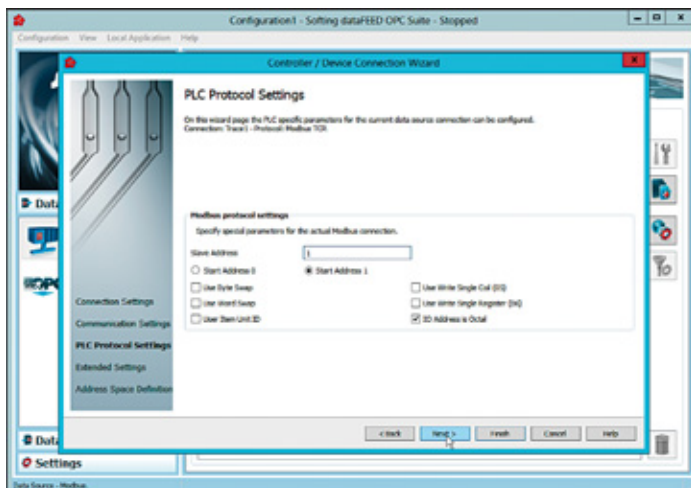




Starting and Configuring the ModBus-Server

Open the "DataFeed OPC® Suite Configurator" and continue as shown in the screenshots.

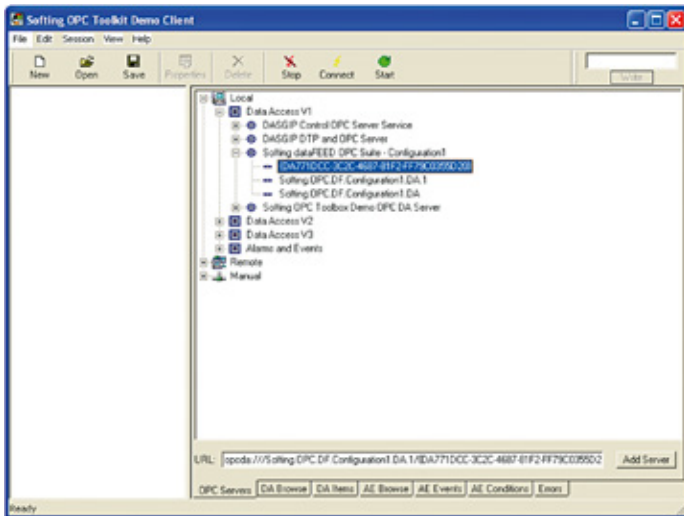




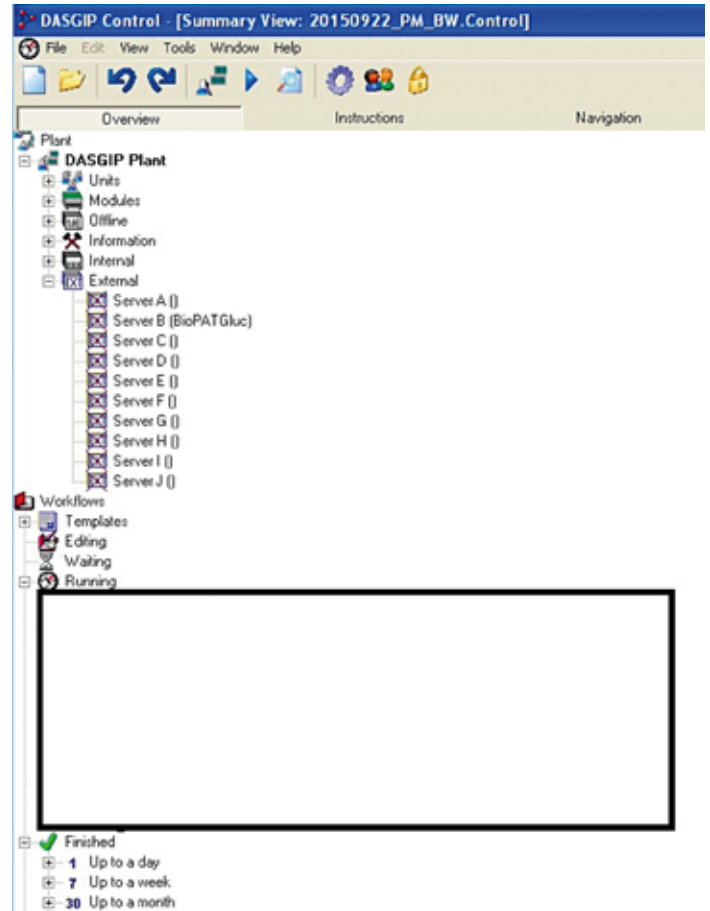
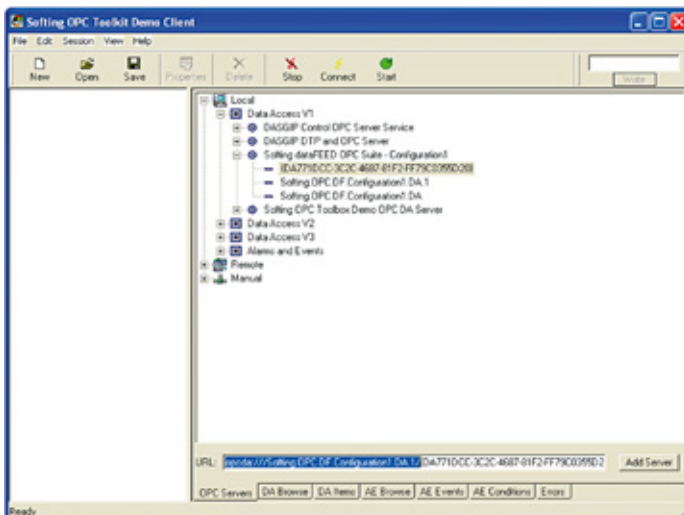
Open up the Softing “OPC® Toolkit Client” and Continue as Follows:

a) Open the path as shown in the picture.

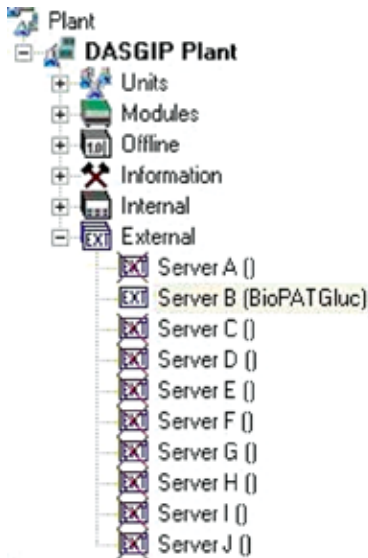
c) Open the DasGip Control system and follow the links.



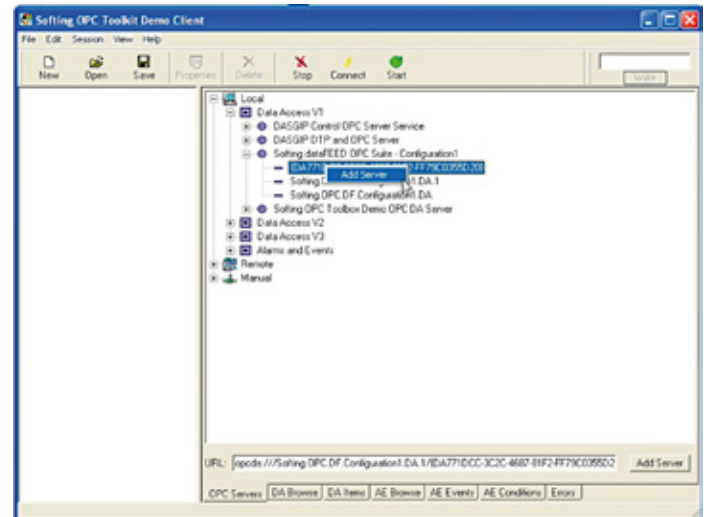
b) Highlight and copy (Ctrl + C) the URL up to but not including the curly brackets.



- d) Select a server (B-J) (server A is for autosamplers and contains several settings). Right click and press Edit.



- f) Now we go back to the “Softing OPC® Toolkit Demo Client” program. Right click as shown on the correct server and add it using the “Add Server” button.

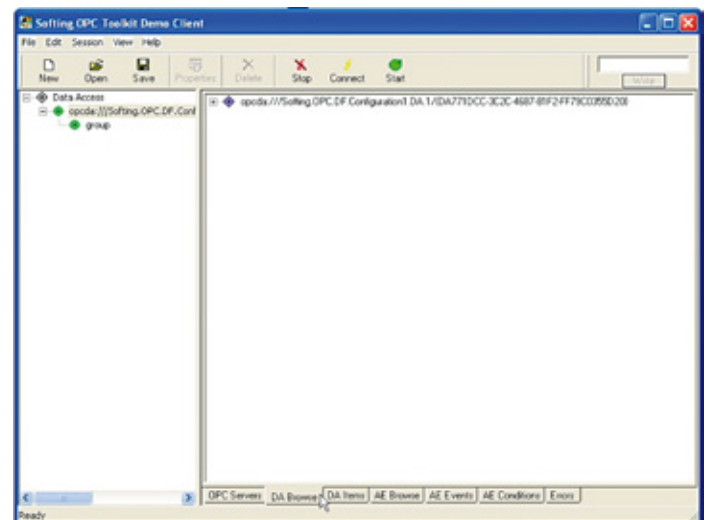


- e) A window opens on the right hand side. Enter a name of your choice and paste (Ctrl + V) the path copied earlier as the path. For now, none of the other settings need to be changed.

Server B

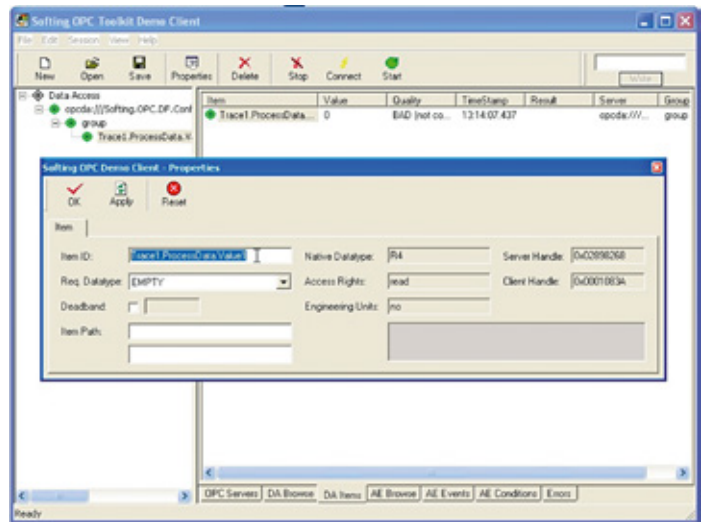
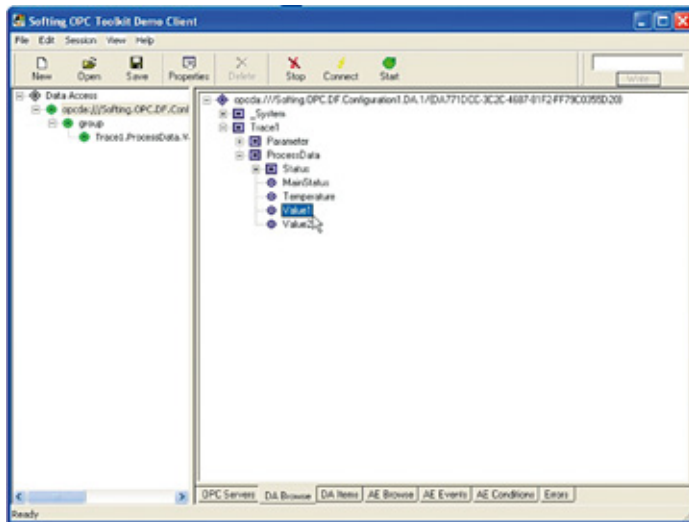
Name	BioPATGluc
Path	opcda:///Softing.OPC.
Location	
Vendor	
Comment	
UpdateInterval	10 s
ZerosValid	<input checked="" type="checkbox"/>

- g) The server is added to the left hand pane. Click on the “DA Browse” tab at the bottom.

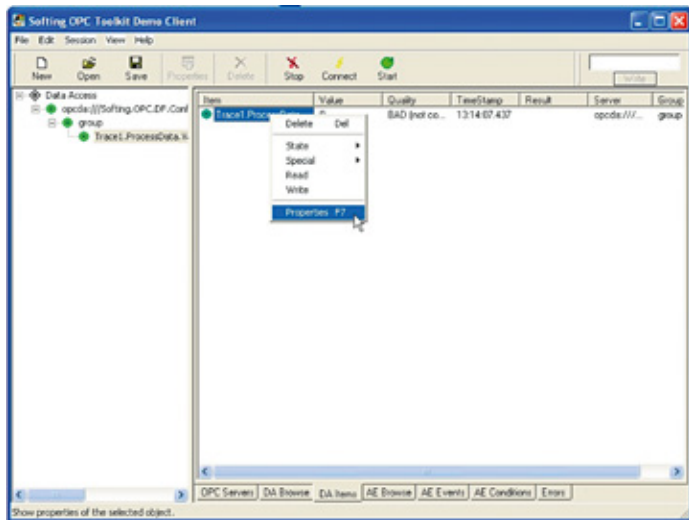


h) In the tab you will see the OPC® server, which you should expand as shown. Here, Value1 is the glucose concentration; Value2 is the lactose concentration. Double click on Value1 to make it appear in the “DA Items” tab.

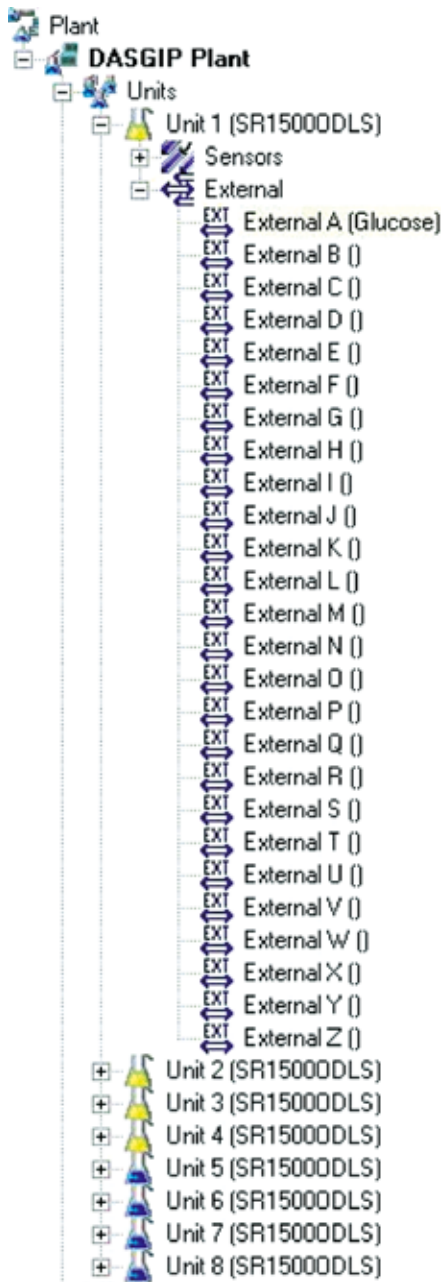
j) In the window which appears copy (Ctrl + C) the “Item ID”.



i) In “DA Items” right click the item you have just added and click “Properties”.



- k) Next, in the DasGip Control system, open the path on the left hand side as shown below. You can select any of the units. In this case the glucose probe is installed in unit 1 and can be found during operation under "External A" in the External values. Any channel can be selected, however.



- l) Right click the external channel (External A here, for example) and then click "Edit" to open another settings window on the right hand side.

Name: Choose a name. This will be displayed later in the DasGip Control system

Path: Paste (Ctrl + V) the "Item ID" that you have just copied

Server: Important: This must match the server given previously under point (e)

EU: Measurement unit for the external device (g/L for BioPAT® Trace)

Check the LoggingEnabled box.

The remaining fields can, as a rule, be left as they are.

External A	
Name	Glucose
Path	Trace1.ProcessData.Va
Server	BioPATGluc
Comment	
AccAttr	Read Only (RO) ▼
Value	0,00
Min	0,00
Max	0,00
EU	g/l
Decimals	2
Coeff0	0,00
Coeff1	1,00
EventsEnabled	<input type="checkbox"/>
LoggingEnabled	<input checked="" type="checkbox"/>

- m) Finally, the DasGip Control system must be completely closed down. The settings will only be applied when the system starts up again.


- n) Upon restart the parameter are contained within the DasGip Control software and ready to use.

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