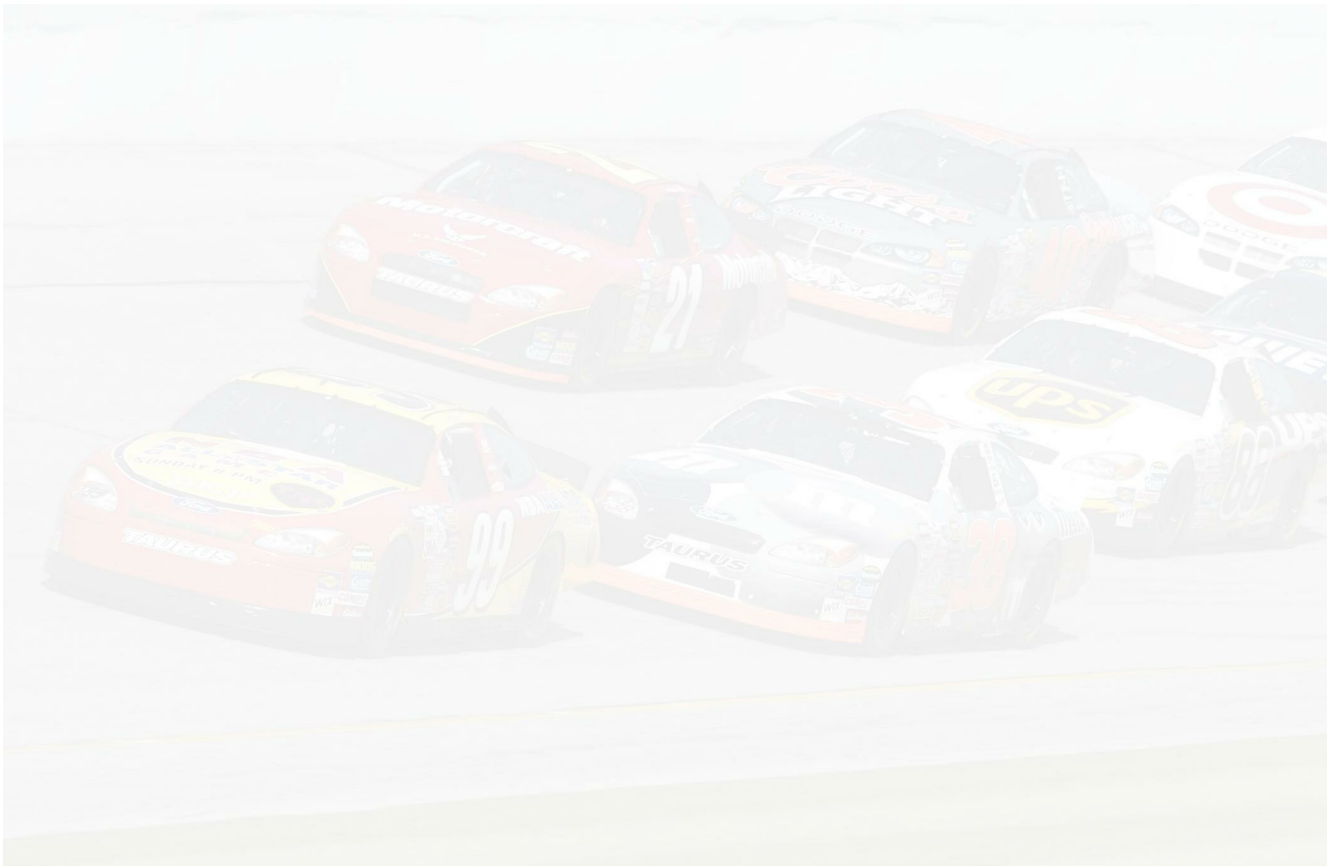




Intouch from DDE to OPC

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Tani GmbH

Networks in industry

The name Tani stands for communication in industrial production.

The focus is on communication systems:

- OPC Server for widespread PLCs
- Equipment and software for connecting PLCs, SCADA systems and databases.
- Fieldbus diagnostic systems.

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1 Intouch from DDE to OPC

Intouch does not yet have an OPC interface. Therefore it is necessary to connect a Gateway in between. This document describes the steps required to convert an Intouch Application from the DDE server to the OPC server.

The Gateway is installed with the installation of Intouch. It is configured using the "System Platform Management Console".

The [DDE Configuration](#) of INAT DDE Server is shown again for the sake of completeness.

The [OPC Configuration](#) of Tani OPC Server is recreated with the same PLC. However, the parameters can be accepted automatically via the menu item "Settings" - "Import configuration from INAT Opc or DDE Server".

The [Gateway Configuration](#) is added.

The [Intouch Configuration](#) is displayed in comparison DDE and OPC.

Here the only change in Intouch Window Maker is the "Application Name" and the "Topic Name".

In Intouch the only change needed is in the configuration of the Access Name, DDE and OPC is compared

DDE	OPC
	<ul style="list-style-type: none"> • Here the "Topic Name" is formed by the group "OPC" and the connection "PLC1" separated by the underscore. This corresponds to the "Device Group Name" in the Gateway configuration. • The "Application Name" is called "FsGateway" in older versions.

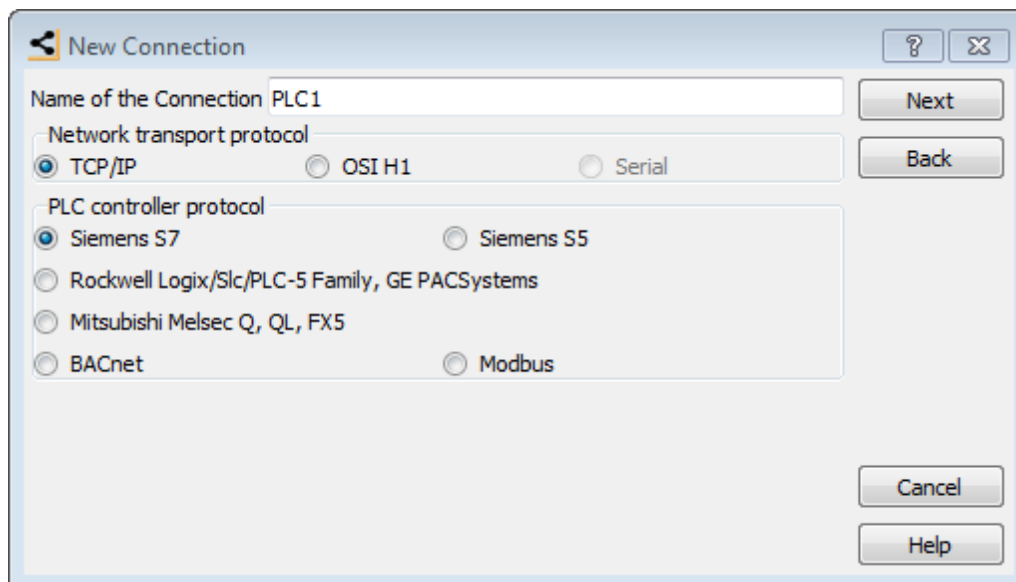
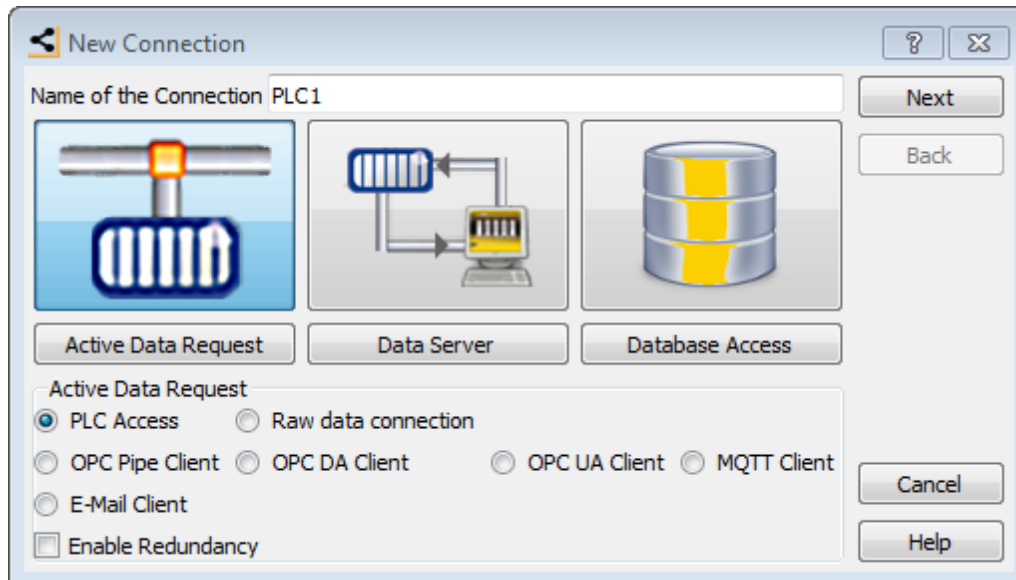
1.1 OPC Configuration

Configuration of the Tani OPC Server

The connection to an S7-300 PLC with the name PLC1 is configured here.

However, the parameters can be converted automatically via the menu item "Settings" - "Import

Configuration from INAT Opc or DDE Server".



New Connection

Name of the Connection: PLC1

Name of the Adapter: LAN-Bridged

Destination IP Address: 192.168.2.200 Search station

☐ Is IPv6 Connection

Destination Port: 2000

Special Settings

☐ PLC Header ☒ Life Data Acks ☒ Rfc1006

Special Settings RFC 1006 TSAPs

Cancel Help

New Connection

Name of the Connection: PLC1

☐ TSAP Mode ☒ S7-300/400 Service/Slot Mode ☐ S7-1200/1500 Mode

Service/Slot

Function: 3 (0 auto, 1 PG, 3 Application)

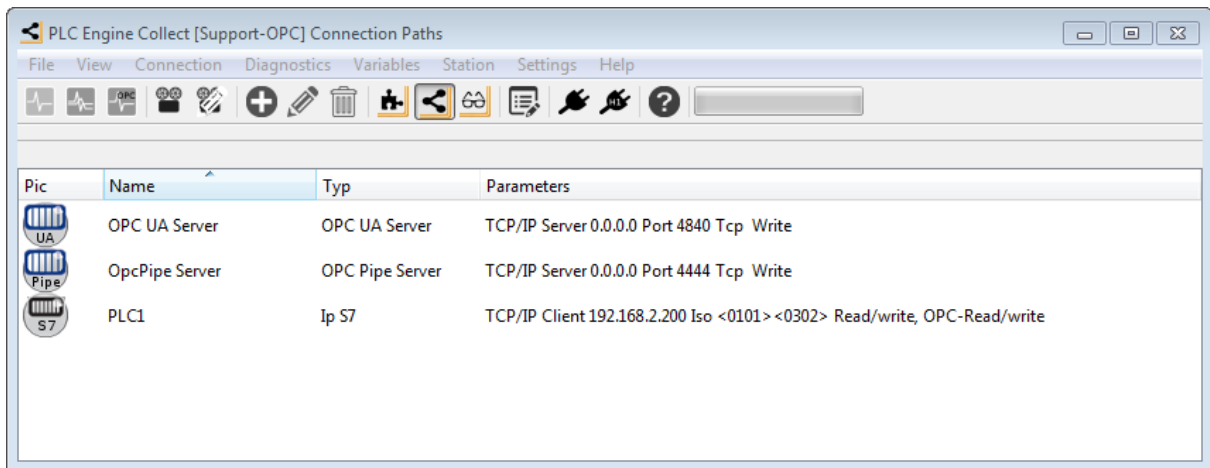
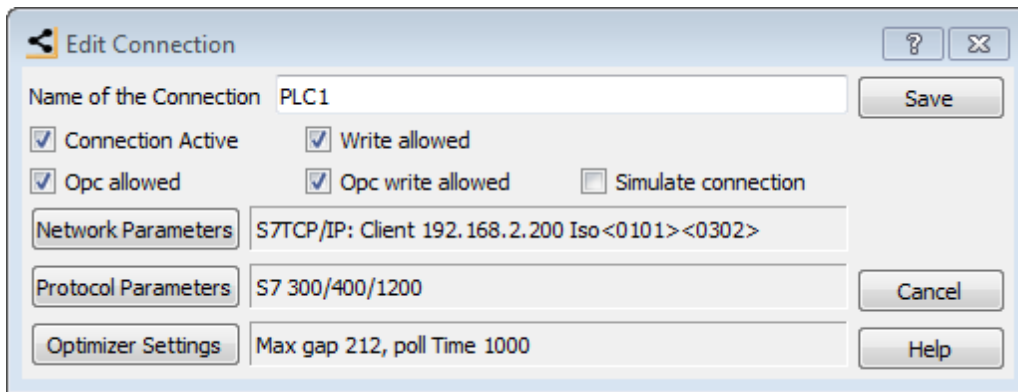
Slot: 2 (Slot of CPU)

COM line: 1 (Mpi line in Gateways)

Available destinations

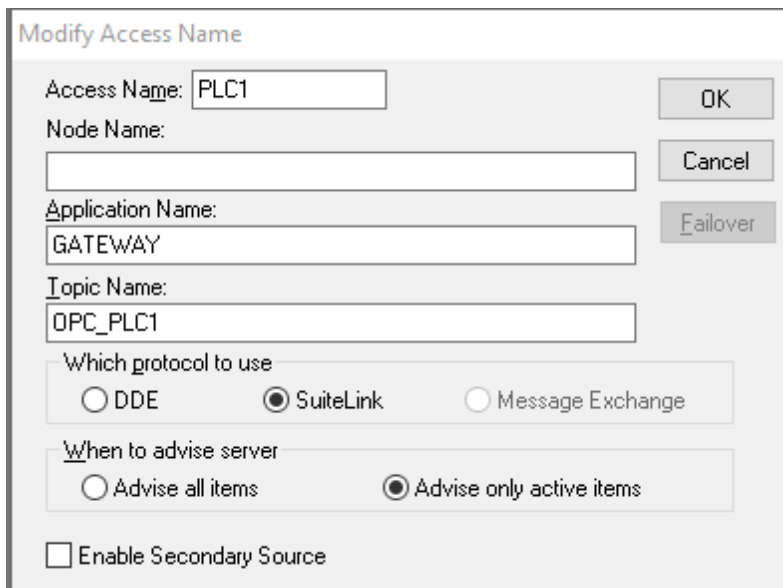
Plc type	Plc name	Func	Slot	Line
CPU 315-2 PN/DP	SIMATIC 300(1)	1	2	1
CPU 315-2 PN/DP	SIMATIC 300(1)	3	2	1
CPU 315-2 PN/DP	SIMATIC 300(1)	3	0	1
CPU 315-2 PN/DP	SIMATIC 300(1)	2	2	1
CPU 315-2 PN/DP	SIMATIC 300(1)	2	0	1
CPU 315-2 PN/DP	SIMATIC 300(1)	1	2	1
CPU 315-2 PN/DP	SIMATIC 300(1)	1	0	1

Cancel Help



Window Maker

In the Intouch Window Maker, the corresponding Access Name is configured via the Gateway



- Here the "Topic Name" is formed by the group "OPC" and the connection name "PLC1" separated by

an underscore. This corresponds to the "Device Group Name" in the gateway configuration.

- The "Application Name" is called "FsGateway" in older versions.

1.2 DDE Configuration

Sample Configuration of the INAT DDE Server

This example shows the configuration of the topic "PLC1" to an S7-300 PLC.

The screenshot shows the "TCP/IP Parameter Settings" dialog box with the following configuration:

- Connection**
 - Name:
 - Protocol: ☒ Activated
 - ☒ Allow Cyclic Poll Poll Interval [ms]:
 - ☒ Write Access to PLC Permitted
 - ☒ Read and Write through One Connection
 - ☐ Fetch on Event
- Destination: IP Address or Name**
 -
- Connection Settings**
 - ☐ No Header ☐ Use PLC Header ☒ Use RFC 1006
 - Port for Read and Write:
 - ☒ Life ACKs ☐ Life Data ACKs
- Connection Establishment**
 - ☒ Active ☐ Passive
 - Protocol: ☒ TCP (reliable) ☐ UDP (not reliable)
- Special Settings**
 - ☒ Read Optimisation Bytes for New Block
 - ☒ High Performance Protocol


Buttons: OK, Cancel, Help. A small icon labeled "TCP/IP" is also visible.

ISO-on-TCP Parameter Settings (RFC1006)

ISO-on-TCP (RFC1006) parameters

	Value Hex	Value ASCII
Local TSAP		
Own TSAP	01 01	
Remote TSAP		
for Read and Write	03 02	

☐ Routing



Topic Definitions - INAT DDE-Server TCPIPH1

Configuration Cancel Save

Name of Connection	Type	Prot	Inte..	Act	Dest	Parameters
PLC1	ISO on TCP	S7	1000	Client	192.168.2.200	Iso <0101><0302>, Write, HPP

Window Maker

In the Intouch, the Access Name Definition for DDE looks like this:

Modify Access Name

Access Name:

Node Name:

Application Name:

Topic Name:

Which protocol to use

☐ DDE
 ☒ SuiteLink
 ☐ Message Exchange

When to advise server

☐ Advise all items
 ☒ Advise only active items

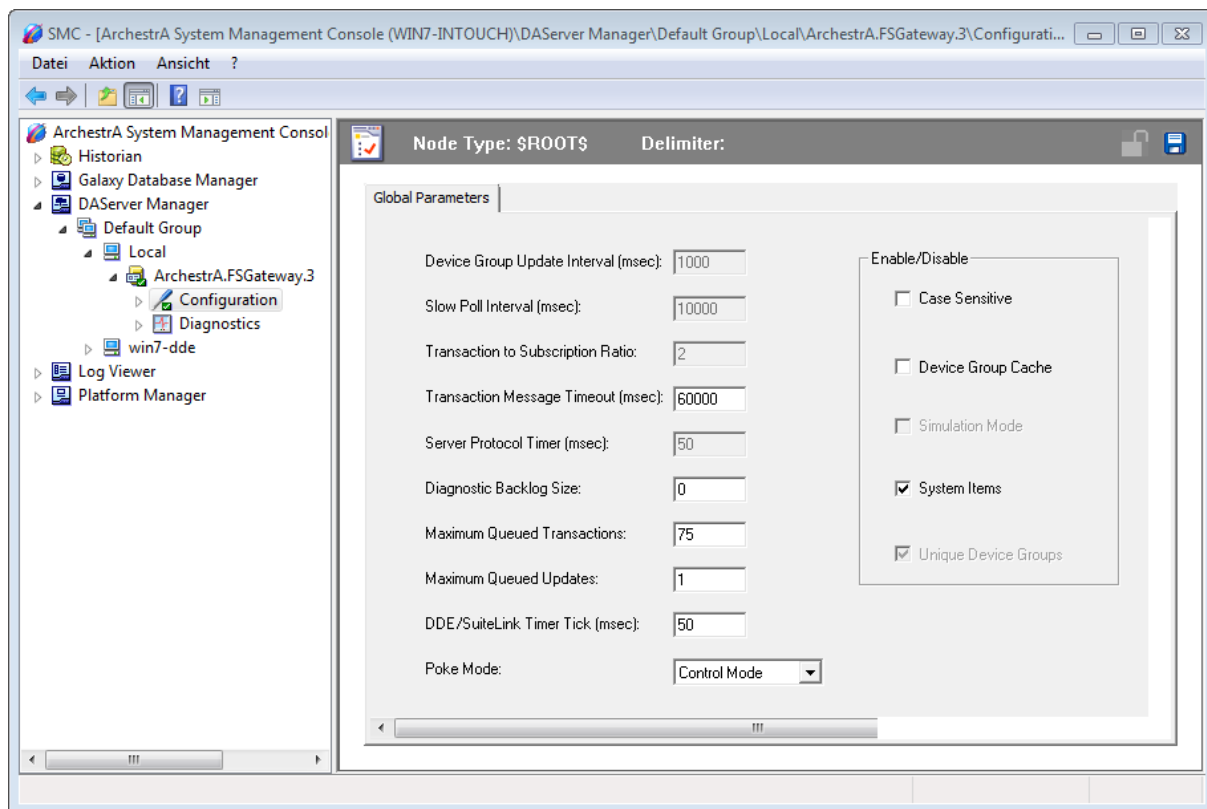
☐ Enable Secondary Source

1.3 Gateway Configuration

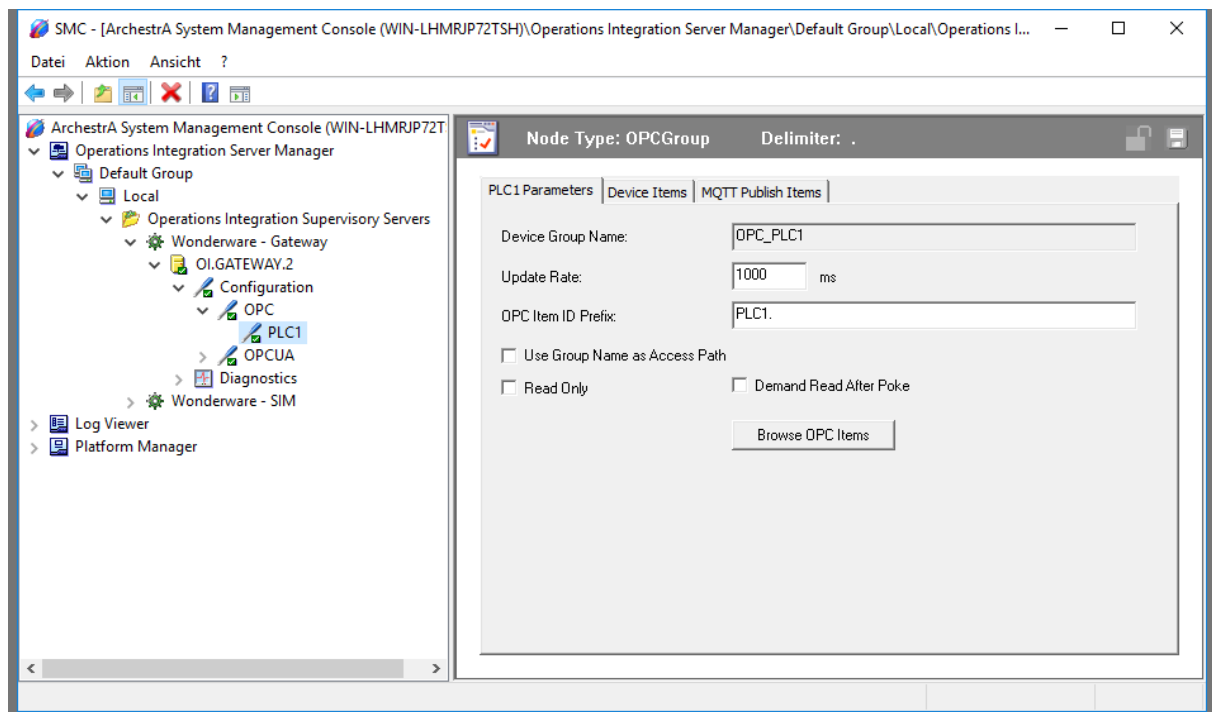
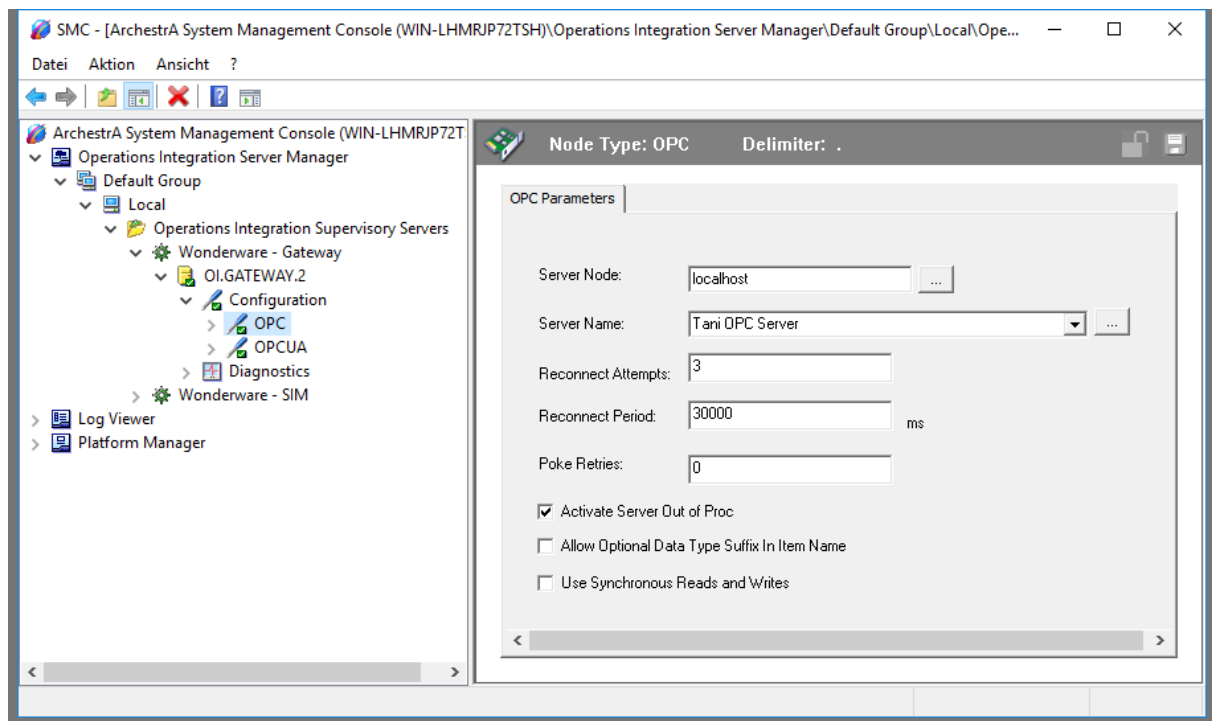
The gateway will be installed with the installation of Intouch.

It is configured using the "System Platform Management Console".

With older Intouch versions it is called **FsGateway**. The configuration is the same.



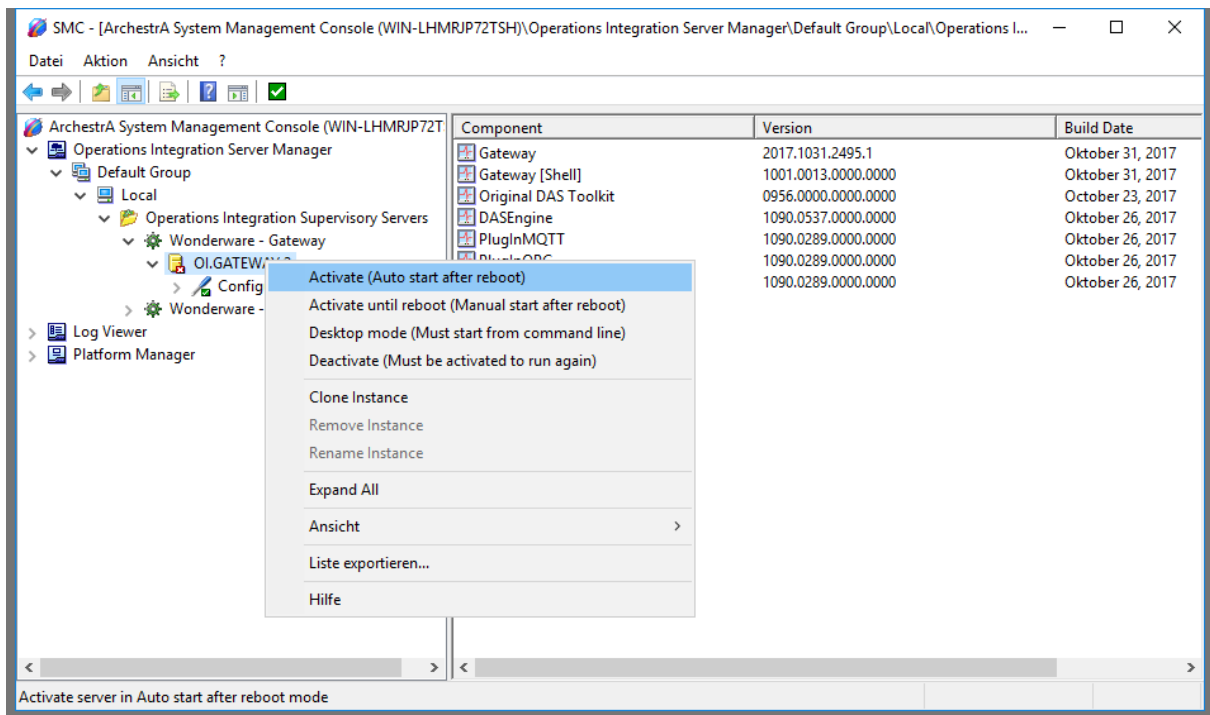
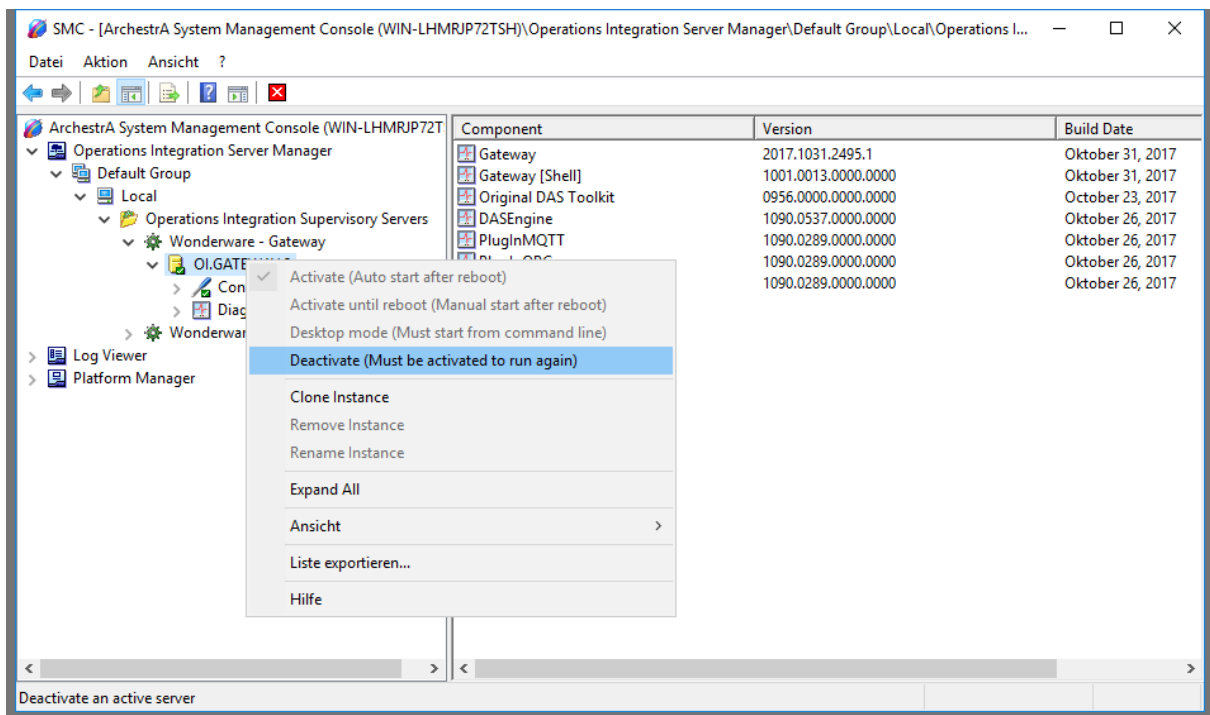
Please make sure that the Poke Mode is changed to "Control Mode", otherwise not all values will be written into the PLC, write operations will be optimized away.



Please note the point after the connection name at "OPC Item ID Prefix" here "PLC1."

Gateway restart

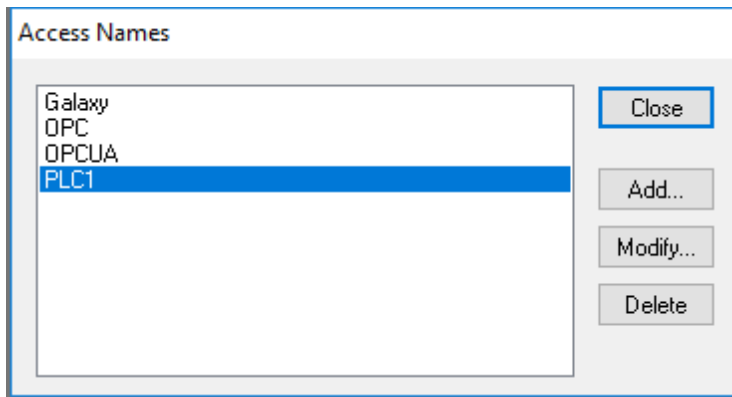
Afterwards the gateway must be restarted, please do not forget.



The gateway is now ready to connect to the OPC server.

1.4 Intouch Configuration

In Intouch, the Access Name Definition looks like this:



In Intouch the only change needed is in the configuration of the Access Name, **DDE and OPC is compared**

DDE	OPC
<p>Modify Access Name</p> <p>Access Name: <input type="text" value="PLC1"/> OK</p> <p>Node Name: <input type="text"/></p> <p>Application Name: <input type="text" value="tcpiph1"/> Cancel</p> <p>Topic Name: <input type="text" value="PLC1"/> Failover</p> <p>Which protocol to use</p> <p><input type="radio"/> DDE <input checked="" type="radio"/> SuiteLink <input type="radio"/> Message Exchange</p> <p>When to advise server</p> <p><input type="radio"/> Advise all items <input checked="" type="radio"/> Advise only active items</p> <p><input type="checkbox"/> Enable Secondary Source</p>	<p>Modify Access Name</p> <p>Access Name: <input type="text" value="PLC1"/> OK</p> <p>Node Name: <input type="text"/></p> <p>Application Name: <input type="text" value="GATEWAY"/> Cancel</p> <p>Topic Name: <input type="text" value="OPC_PLC1"/> Failover</p> <p>Which protocol to use</p> <p><input type="radio"/> DDE <input checked="" type="radio"/> SuiteLink <input type="radio"/> Message Exchange</p> <p>When to advise server</p> <p><input type="radio"/> Advise all items <input checked="" type="radio"/> Advise only active items</p> <p><input type="checkbox"/> Enable Secondary Source</p>
	<ul style="list-style-type: none"> Here the "Topic Name" is formed by the group "OPC" and the connection "PLC1" separated by the underscore. This corresponds to the "Device Group Name" in the Gateway configuration. The "Application Name" is called "FsGateway" in older versions.

A data point is then defined as follows

Object type: Text Prev Link Next Link OK Cancel

Touch Links User Inputs <input type="checkbox"/> Discrete <input type="checkbox"/> Analog <input type="checkbox"/> String Sliders <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal Touch Pushbuttons <input type="checkbox"/> Discrete Value <input type="checkbox"/> Action <input type="checkbox"/> Show Window <input type="checkbox"/> Hide Window	Line Color <input type="checkbox"/> Discrete <input type="checkbox"/> Analog <input type="checkbox"/> Discrete Alarm <input type="checkbox"/> Analog Alarm Object Size <input type="checkbox"/> Height <input type="checkbox"/> Width Miscellaneous <input type="checkbox"/> Visibility <input type="checkbox"/> Blink <input type="checkbox"/> Orientation <input type="checkbox"/> Disable <input type="checkbox"/> Tooltip	Fill Color <input type="checkbox"/> Discrete <input type="checkbox"/> Analog <input type="checkbox"/> Discrete Alarm <input type="checkbox"/> Analog Alarm Location <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal Value Display <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Analog <input type="checkbox"/> String	Text Color <input type="checkbox"/> Discrete <input type="checkbox"/> Analog <input type="checkbox"/> Discrete Alarm <input type="checkbox"/> Analog Alarm Percent Fill <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal
---	---	--	--

Tagname Dictionary [X]

☐ Main
 ☒ Details
☐ Alarms
☐ Details & Alarms
☐ Members

New Restore Delete Save << Select... >> Cancel Close

Tagname: MW10 Type: ... I/O Integer
 Group: ... \$System ☐ Read only ☒ Read Write
 Comment: AccessLevel
☐ Log Data ☐ Log Events ☐ Retentive Value ☐ Retentive Parameters

Initial Value: 0 Min EU: -32768 Max EU: 65535
 Deadband: 0 Min Raw: -32768 Max Raw: 65535
 Eng Units: Log Deadband: 0 Conversion: ☒ Linear ☐ Square Root

Access Name: ... PLC1
 Item: MW10 ☐ Use Tagname as Item Name

Object type: Text Prev Link Next Link OK Cancel

Output -> Analog Expression

Expression: MW10 OK Cancel

Formatting

Text String Precision: 0 Bits From: 0 To: 31

☐ Fixed Width Clear

The image in which the data point is used looks like this:

