

	Intern			
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	Fast introduction in the handling of the OPC Server.			
	For action	For information	For circulation	
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This document describes the most important steps for the installation and the utilisation of the S-Bus OPC-Server.

To test the communication between the PCD and the OPC-Server you have to configure a PCD as following:

Port 0 (PGU-port) is configured as S-Bus PGU, data mode with 9600 Baud, Station number 10.

8 Inputs with address 0 to 7 and 8 Outputs with address 16 to 23 are installed in the PCD. The PCD is connected from the port 0 (PGU) to the port x of the PC with the cable PCD8.K111.

The PCD is running.

To check if you are able to communicate in S-Bus mode between the PCD an the PC you can access to the PCD from the PG5 in S-Bus mode. (9600 Baud, data-mode, Station number 10)

Installation of the OPC Server:

Start the file "SaiaS-Bus.EXE" from the CD-ROM	
Be sure that you have the admistrator rights on	MOS SAIA S-BUS - Installation
the PC	Welcome!
	2.02.08.03.
	Press the Next button to start the installation. If you do not want to install MOS SAIA S-BUS at this time, press the Cancel button.
	Warning!
	This installation program must be run with Administrator's rights.
	< <u>B</u> ack ∑ancel



Select the Option Installation	MOS SAIA S-BUS - Installation	
	Select Installation/Registration Select on and press the NOS SAIA S-BUS. Select one and press the Next button. Image: Installation Image:	
Make the next points:		
Definition where you like to store the files and so		
on,		
 In this menu point you can select which Scomm.dll you like to use. You have the following possibilities: Install the scomm.dll included in the OPC- Server Browse for an other scomm.dll on the PC Use the scomm.dll that the OPC-Server has found. Note: If you like to use the PG5 and the OPC Server at the same time then both programs have to use the same scomm.dll. In this case don't install the scomm.dll from the OPC package. 	MOS SAIA S-BUS - Installation Image: Work of the second	
After this you can install the OPC Server		
At the end of the installation the following entries are visible in the task list of your PC: Programs, Merz OPC, MOS SAIA S-Bus,	MOS SAIA S-BUS Configuration Image: Configuration Image: Configuration Image: Configuration	

Use of the OPC Server, definition of the PCD media's that the OPC-Client can read and write in :PCD.

Run the Configuration from the Task list:	😹 Configuration	
Programs, Merz OPC, MOS SAIA S-Bus		



Type the name of your new project or select an	Open configuration
existing project:	Look jn: 🔄 SAIA S-BUS 🔽 💼 🖻
	Backup 💑 new_scom 32
Example:	Doc diopc_1test
Type the name of a new project:	btr Architest_von_PCD
first test	neu aupigebaude ar cost
—	new_17012001 datestrs485
	File name: first test
	Files of type: S-BUS configuration files (* shcfa)
After this you have the following screen.	Kifirst_test.sbcfg - Merz OPC Saia S-bus Server File Option Help
Colort the button "Add now station" to define a	Common Settings
Select the button Add new station to define a	Add new station
	Pathname.to.the LOG.file Browse
	Mavimum size 100 KB
	Shorted size 80 KB
	Temporary buffer size 20 KB
	Sayed Communication errors
	Clients' (dis-)connection Communication process
	Write errors Read errors
	New clients' requests
Introduce the name of your PLC Station	Write name of new station
	Station_10
	·
	OK Cancel
Select the communication parameter between the	File Mode Help
"Connection settings"	S-BUS Station
Connection settings	🗄 🖮 station_10 Besponse 50 ms Add Delete
	<u><u><u>R</u>ename</u></u>
	Add data block
	Import from PG
	Connection settings Channel settings
	Alternative Connection settings
	Addr <u>e</u> ss 10 Ba <u>u</u> d rate 9600 💌
	LUM Channel: PGI
	Show Communication Durrer
	Comment



Select the S-Bus mode and select the correct station number of the PCD. For example station 10. If needed adapt the com port properties by selecting the button "Setup".	Online Settings ▼ Channel OK Name: Setup COM1, S-BUS, 9600 Cancel Connection Help S-BUS Station: 10 Number of retries: 3 Don't Close: ■
The actual connection settings are shown on the screen.	image: first_test.sbcfg* - Merz OPC Saia S-bus Server File Mode Help Station
Click on the Station name to open see the PLC media's selection tree.	Station_10 Counter Flag Input Add data block
On the tree select the media Input	Output Import from PG Period Special Status Connection settings Address 10 Bayd rate 9600 Image: Channel settings Address 10 Bayd rate 9600 Image: Channel settings Channel: S-BUS Show Communication buffer Comment
Write in the Filed Item Generation "From" 0 "To" 7	Fig. Merz 0PC Saia Subus Server
and click on the button "Generate Items"	Eile Mode Help File Mode Help File S-BUS File Station_10 File Inputs File Output File Register Special Empty Timer Items generation Fign O Type Integer Generate items







Save the project	<u>File</u> Mode <u>H</u> elp
	New Ctrl+N
	Open Ctrl+O
	Save as
	Path to SCommDry libraries
	Import .csv Ctrl+I
	Exportcsv Ctrl+E
	<u>R</u> egistered configuration Ctrl+R
	Exit E⊻it®ister
Register the configuration by selecting Registered	<u>Fi</u> le M <u>o</u> de <u>H</u> elp
congiguration:	New Ctrl+N
	Open Ctrl+0
Register mean that this project is visible to the	Save as
OPC-Clients	Path to SCommDry libraries
	Import .csv Ctrl+I
	Export .csv Ctrl+E
	Registered configuration Ctrl+R
	Exit Exit & register
The OPC Server is now ready and waits that a	
OPC Client like to access the medias of the PCD	
Start the OPC Client and browse to the PCD	
media's defined in the OPC Server or	
There is a small OPC-Client inside the OPC-	
Server that allow to read the items	
Select Test OPC-Client from the Mode menu of	M <u>o</u> de <u>H</u> elp
the OPC-Server.	Simulation
Be sure that the option Simulation is not selected.	Test OPC client Ctrl+T
Select the items that you like to display and	ATest OPC client - Merz OPC Saia S-bus Server
putted in the upper screen with the button add.	Item Name Value Time Quality Canonic data t
	Item Name Active Add/remove items tation_101mpd.fnput_0000 tation_101mpd.fnput_0000 Add al Remove all Stop
	station_10.input.input_0002 station_10.input.input_0003 station_10.input
	tation_10.input.input_0005 tation_10.input.input_0005 tation_10.input.input.input_0007 1000 5et Disse
The values are new displayed in the upper server	I station_10.0utput.0utput_0016
an if the communication runs well the actual value	Item Name Value Time Duality Canonic data L. station 10 nov lineur 1000 1 123819 (3/15/2012 Good insourceordie Rate
is shown in the column "Value"	station_101/pput.lnput_0001 0 12.38.19.03/15/2002 Good, non-specific Byte station_101.lnput.lnput_0002 1 12.38.19.03/15/2002 Good, non-specific Byte
Check also the column Quality of the item.	
If the Quality is good then there is a data-	
exchange with the PCD.	
If the Quality is bad then there is now	Item Name Active
communication with the PCD or there is	station_10.lnput.lnput_0000 Yes Add/enrove items station_10.lnput.lnput_0001 Yes Add/all Benove all Stop
something wrong with communication.	station, 10 pok Input J000k station, 10 pok Input J000k station, 10 input Input J000k No No No No No No No No No No
	station_101/pot.hput.0006 No station_101/pot.hput.0006 No totom_101/pot.hput.0007 No value_101/pot.hput.0007 No totom_101/pot.hput.0007 No
	awww_noordbitrindbit/finite No
	•



Now you could use your own OPC Client and connect with your client to the S-Bus OPC-Server For test purposes we do use often the OPC Client 'OPC Explorer' from the company Matrikon: This OPC Explorer act as a OPC Client and allow to check if the connection OPC Client/OPC Server works well.

To use the OPC Client from Matrikon please make the following steps:

Installation of the OPC Client from Matrikon:

Download the Matrikon Explorer from the	
Matrikon homepage.	
https://www.matrikonopc.com	
Install the OPC Explorer on your PC	

Use of the OPC Client:

From the directory C:/programs/Matrikon/OPC/Common	
OPCExplorer.exe	
Following screen is visible:	Mutrikon OPC Explorer - Unitited) File Server Vew Help IIC Creat OPC Alignoppin Chect OPC Norman
	Server: Clest.OPC Connected: No Matrikon We Make Connections Advising:
Select the the OPC Client from Merz.	Image: Citect.OPC Image
Connect the Client to the OPC Server by clicking on the button Connect	Matrikon OPC Explorer - [Untitled] File Server View Help Merz.OPC_SAIA_S-BUS.1 All groups in 'Merz.OPC_SAIA_
The status of the OPC Server is shown on the bottom of the screen	Server: Merz.OPC_SAIA_S-BU5.1 Connected: Yes State: Running Groups: 0 Current Time: 30.03.01 17:00;57 Last Update Time: 30.03.01 17:00:48



Create a new group by clicking on the group icon	Matrikon OPC Explorer - [Untitled*]
on the top of the screen.	<u>F</u> ile <u>S</u> erver ⊻iew <u>H</u> elp
	🚾 Merz.OPC_SAIA_S-BUS.1 💽 🤓 😥 🧉
	All groups in 'Merz.OPC_SAIA_
	No groups
Insert the name of the group in the specific field	New Group ? ×
	Group Name: First OK
	Update Rate: 1000 (msec) Asynchronous I/O
	% Deadband:
	Time Bias: (GMT+01:00) Berlin, Stockholm, Rome, Bern
The new group is shown on the left side of the	Matrikon OPC Explorer - [Unitiled"]
screen.	All groups in Merz. OPC_SAIA_Contents of First
Move the cursor to the group and push the right	Litem au Access vam Joacus J vaue J imetanto Wirko Rens
mouse button.	
	<
	Server: Merz.OPC_SAIA_S-BUS.1 Group: First Connected /vss Connected (Async 1/0): Yes (2:0)
	State: Running Active: Yes Groups: 1 Terms: 0 Current Une: 3003/0117/05/21 Current Update Rate (1000 ms
	Last Update Time: 3003.01 1/20:49 Percent Deadband: 0.00% Matrikon W. Habe Connections Arbsine:
Select the option "Add items"	Deactivate
	Delete Del
	Properties Alt+Enter
Select in the window on the left side the station	Andrikon OPC Tag Studio - Matrikon OPC Explorer (First)
10	
	Tag Entry Tag List
	Deta Type: Empty/Default ▼ IF Greate Active
	Access Bath:
	Dgta Type Filter: Empty/Default T IV Write Access
	Available Items in Server 'Merz.OPC_SAIA_S-BUS.1':



Select the items that you like to display on the OPC Client.	Available Items in Server 'Merz.OPC_SAIA_S-BUS.1':
Push the right mousebutton and select the option "Add all items to tag list"	Se Matrikon OPC Tag Studio - Matrikon OPC Explorer (First) Image: Constraint of the second secon
Make the same with the output folder and the special folder.	Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) File Edit Y Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OPC Explorer (First) Image: Studio - Matrixon OP
After this all items are moved in the task list	Image: Station 10 Statio
Select the Option "Close Tag Studio and update ProcessX Eplorer"	Matrikon OPC Tag Studio - Matrikon OPC Ex File Edit View Help X २३ X 🛍 È थे 😅 Tag En.



All selected tags are now show in the OPC Client	Matrikon OPC Explorer - [Untitled*] Eile Server Group [tem View Help	
with the actual status of the media's	🗺 Merz. OPC_SAIA_S-BUS. 1 💌 🥦 🏂 🐨 🖄 🚺	8 2 2 9 4 🛥 🖉 🗴 🖉 🖉 🖉
with the detual status of the media s.	All groups in 'Merz.OPC_SAIA_ Contents of 'Start'	
	Start Item ID Access Path	Status Value Timestamp
To force a output you have to move the ourser	Station_10.Input.input Station_10.Input.input	Active 0 30.03.01 16:44:36 Active 0 30.03.01 16:44:36
To force a output you have to move the cursor	Station_10.Input	Active 0 30.03.01 16:44:36
over the output and to push the right button.	Station_10.input.input	Active 0 30.03.01 16:44:36
······································	Station_10.Input	Active 0 30.03.01 16:44:36
	Station_10.Input.Input	Active 0 30.03.01 16:44:36
	Station_10.Output.Out	Active 1 30.03.01 16:49:34
	Station_10.0utput.Out	Active 0 30.03.01 16:49:34
	Station_10.Output.Out	Active 0 30.03.01 16:49:34
	Station_10.0utput.Out	Active 0 30.03.01 16:49:34
	Station_10.Output.Out	Active 1 30.03.01 16:49:34
	Station_10.Special.Clock	Active 30.03.01 10:41 30.03.01 16:49:34
	-	F
	Server: Merz.OPC_SAIA_S-BUS.1	Group: Start
	Connected: Yes	Connected (Async I/O): Yes (2.0)
	State: Running Groups: 1	Active: Yes Items: 17
	Eurrent Time: 30.03.01 16:49:35 Last Update Time: 30.03.01 16:41:25	Eurrent Update Rate: 1000 ms Percent Deadband: 0.00%
	*Matrikon We Make Connections	Advising: 🗎
Select the option "write Values"	Station_10.Output.Out	А
ociect the option white values	Station 10 Output Out	A
	Write Values	
	Station_10.00 Deactivate	~ ~
		~
	Station_10.01 Delete D	Del 🦷
	Station_10.0	, ^
	Station_10.01 Properties A	Alt+Enter
	Station_10.5peciar.clock	µ
	Station_10_Special Display	۵
Insert the new value of the output in the field	⊯/ Write Values	? ×
"New Value"		
	Multiple Value Signal Generator	
By clicking on the "OK" button the value is		· - / · · · · · · · · · · · · · · · · ·
transmitted to the OPC Server ant the OPC	Item ID Current Value Da	ata Type New Value
Conversion do survivo the such as in the DCD	IN Station_10.00cpu[0 Byt	.e 1