Installation Instructions English Translation of the Original Installation Instructions

BioPAT[®] Trace OPC[®] DA Server

Software



85037-552-54





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1 About These Instructions

1.1 Scope

These instructions supply all the information you need to install your "BioPAT® Trace OPC® DA Server" software (hereinafter also referred to as "the software").

This manual applies to the following versions of the software:

Software Name	Article number	Version number
BioPAT® Trace OPC® DA Server	BPTOOPC	1.0.0

1.2 Accompanying Documents

These instructions describe how to install the software.

- ▶ In addition to this manual, observe the following documents:
 - OPC® Server Ethernet, user manual, version D-112011-01
 - BioPAT[®] Trace Multi Trace, Operating Manual
 - BioPAT[®] MFCS/win, Operating Instructions

1.3 Symbols Used

1.3.1 Warnings

▲ CAUTION

Denotes a danger with risk that moderate or minor injury may result if it is **not** avoided.

1.3.2	Other Symbols Used
	Required action: Describes actions that must be performed.
\triangleright	Result: Describes the result of the activities carried out.
[]	Text inside brackets refers to control and display elements

Figures on the Operating Display

Depending on the device configuration, the figures on the operating display of the device may differ from those described in these instructions.

2 Basic Principles of Software Use

2.1 Legal Information

2.1.1 Installation Instructions

These installation instructions or parts thereof must not be reproduced or transmitted to others in any form. All rights reserved by Sartorius Stedim Biotech GmbH in accordance with copyright law. The installation instructions are intended for use by the purchaser only. Transfer to third parties, whether free of charge or in return for payment, is not permitted.

2.1.2 "BioPAT® Trace OPC® DA Server" Software

The software contained on the "BioPAT® Trace OPC® DA Server" DVD-ROM is the property of Sartorius Stedim Biotech GmbH. Sartorius Stedim Biotech GmbH owns the copyright for the "BioPAT® Trace OPC® DA Server" software and will hold you liable for any damage incurred as a result of copyright violations on your part.

The license agreement for the "BioPAT[®] Trace OPC[®] DA Server" software will be displayed when you install the software (see Chapter "3.2 Installation", page 12).

License Agreement

In particular, the following shall apply:

- With the exception of a backup copy, the software may not be reproduced, changed, reverse engineered, or modified by recompiling.
- The OPC[®] Server can manage several devices!
- The software is intended for use by the purchaser only. Transfer to third parties, whether free of charge or in return for payment, is not permitted.

If you experience problems with the enclosed software, please send an e-mail to trace@sartorius.com.

Any liability for the software of other developers provided on the DVD-ROM or software already installed on your system is hereby excluded.

Users shall be liable for the improper use of said software.

2.1.3 Trademark Rights

Microsoft[®] and Windows[®] are either registered trademarks or trademarks of Microsoft Corporation in the United States of America and | or other countries.

Other product names mentioned in these operating instructions may be trademarks or registered trademarks of the respective companies and are hereby acknowledged.

2.2 Safety Instructions

Property Damage due to Improper Use of the Software

Changes to the software through recompiling, incomplete or faulty inputs may lead to incorrect product tests and | or incorrect reports. Faulty inspections and faulty reports can result in property damage.

- Do not carry out any recompiling of the software. If any modifications to the software are required, these should only be carried out by Sartorius employees.
- Please read the operating instructions before using the program.
- Only use the program as described in the operating instructions.
- The installation instructions and operating instructions should be stored such that they are always accessible to all individuals who work with the program.
- The software can be operated correctly only on computers which fulfill the minimum requirements (Chapter "4 Specifications", page 33).

2.3 Intended Use

The intended use of the software requires that you

- have installed the software on your system in accordance with the installation instructions,
- have read and understood the operating instructions,
- use the software only as described in the operating instructions,
- use the software only to control devices and components approved by Sartorius.

Improper Use

You are deemed to be using the software improperly if

- you change it by recompiling,
- you use it in ways other than those described in the operating instructions.

2.4 Equipment Supplied

The "BioPAT® Trace OPC® DA Server" installation software is delivered with the following equipment:

- "BioPAT[®] Trace OPC[®] DA Server", installation software (on DVD-ROM)
- "BioPAT® Trace OPC® DA Server", license key (printed on the DVD cover)
- "BioPAT® Trace OPC® DA Server", installation instructions (printout)

2.5 Requirements

2.5.1 Operating Personnel

- The user has technical knowledge in biotechnology.
- The user must have experience in dealing with the software functions and elements of the user interface of the operating system (see Chapter "4 Specifications", page 33).

2.5.2 Hardware

For the installation and execution of the "BioPAT® Trace OPC® DA Server" software, the computer must fulfill minimum requirements. See Chapter "4 Specifications", page 33.

2.5.3 Operating System

An operating system must be installed for installation and execution of the "BioPAT® Trace OPC® DA Server" software (see Chapter "4 Specifications", page 33).

2.5.4 Additional Software

Software Help

To use the software help, you must install software that can display PDF files. A suitable program is Adobe Reader, for example.

2.6 Software Description

The "BioPAT® Trace OPC® DA Server" software complies with the first specification of the OPC® Foundation and is intended for process data communication. It defines an interface between client software and server software for data exchange. An OPC® server enables one (or several) OPC® client(s) to access process data via this interface.

2.7 Software Setup

In this chapter, you will gain an overview of the software setup:

Make sure that

- "MFCS/win" (including "Support Package" from version 1) is installed,
- "OPC[®] Client" (from "MFCS") is installed!

Type of action	Chapter
Configurations and installation: Configuring the settings for the operating system of the "BioPAT® Trace OPC® DA Server's" computer Configuring the settings on the BioPAT® Trace system (e.g. IP address) Installing the "BioPAT® Trace OPC® DA Server" software	Chapter "3 Configurations and Installation", page 11
Jerver Soltware	

3 Configurations and Installation

3.1 Preconfiguring the Operating System Settings

Tip:

Sartorius Stedim Biotech GmbH recommends installing the "BioPAT® Trace OPC® DA Server" software on a newly installed operating system to avoid any compatibility issues that may occur with pre-installed software.

Before installing the software, it is necessary that you configure some settings in your operating system.

During installation, the operating system settings are checked. Incorrect settings in the operating system will lead to error messages or the installation being aborted.



Layout example for installing the "BioPAT® Trace OPC® DA Server"

3.2 Installation



▶ Start the installation with [Next >].



This screen appears when the requirements for installation are not met.
 End the installation.

- Make sure that all system requirements are met.
- ► Carry out a restart.
- Continue with the installation process.



▶ Agree to licensing terms and continue with [Next >].



Select [Yes] to continue.



▶ [Install] to start the installation.



▶ [Yes] to select "dataFEED".

MFCSwin Optional Modules - InstallShield Wizard
Setup Status The InstallSheld Wizard is installing MPCS/win BioPAT(8) Trace OPC DA Server Level 3.0.0.1 Softing dataFEED OPC Suite - InstallShield Wizard Select the language for the installation from the choices below. English [United States] UK Cancel
Cancel Cancel

▶ Selecting the language for the "dataFEED Suite" setup.



▶ Selecting [Next >] to install the "dataFEED Suite".



▶ Agree to licensing terms and continue with [Next >].



Confirm this display with [Next >].



Start the installation with [Install].



Confirm completion of the installation with [Finish].

9	Automation Net PVI V4.0 Setup
Choose Install Location Choose the folder in which to in	stall Automation Net PVI V4.0.
	Setup will install Automation Net PVI VI-0 in the following folder. To install in a different folder, dick browse and select another folder. Click Install to start the installation.
BeR	Destination Folder <u>Information</u> Space required: 61.2MB Space available: 33.068
B&R Installation	Install
DISUBLIC	

▶ Negate the prompt for "Third Party Software" with [Cancel].

9	Automation Net PVI V4.0 Setup	x
Choose Install Locatio Choose the folder in whic	o install Automation Net PVI V4.0.	
	Setup will install Automation Net PVI V4.0 in the following folder. To install in a different folder, dick Browse and select another folder. Click Install to start the installation.	
Ru	Automation Net PVI V4.0 Setup ×	
	Ves No Browse	
	Space available: 33.008	
B&R Installation	Instal	

▶ Confirm cancellation of the "Third Party Installation" process with [Yes].

	Softing License Manager	
. ofting	Management and activation of software licenses on PC's	c
Licensing on	Available licenses on this PC	
PC USB Dongle	Product Name Order Number Version Expires Options License	
Softing Interface	Activite for this PC Generate license file for remote PC PC with internet connection	
	PC-1d: BIOS: Phoenix Technologies ITD - BYTEL - 6040000 (BIOSWHware-56464532:2429085-6db	412br -
	PC without internet connection	
Configuration	Export PC-lds Import leanes file	
Help		

 \triangleright The license manager is started.

▶ Enter the "License Key" (printed on the DVD cover)



▶ After installation, carry out a "Restart" by selecting [Yes].



- Select this selection field only (if necessary, delete the marking of all other fields).
- ▶ Confirm with [OK].
- \triangleright The installation is completed.

3.3 Starting the Configuration



▶ Select [dataFEED OPC[®]...] to start the configuration.

	Configur	ation1 - Softin	ng dataFEED OPC Suite -	Stopped	×
Configuration View Local Application H	elp				
rofting			Data Sourc	e - Modbus	
	Controllers and De	vices			
	Create and modify of	connections to cont	rollers and devices.		
N. Country	Name	Туре	Address	Parameters	18
Data Source					Add a re
🕎 Modbus					0
COPC OPC Server					Yo
Data Destination					Î
Settings					

Select [Add a new connection/data] to add a data source.

9	Configuration1 - Softing dataFEED OPC Suite - Stopped	- 🗆 X
Configuration View Local Application	Help	
	Controller / Device Connection Wizard	
	Connection Settings On the weard page the Connection Settings of the actual data source connection to a Hodous device are configured. Connection: Modous_1.	5
Date	Connection Name Specify the name of the actual connection. This name is also always the name of the root node of the name space and must therefore unique throughout the whole configuration.	11
	Connection name: Trace)	8
F	Connection Settings Specify if the connection shall be active or shall be in simulation mode.	
BOP	Connection Active:	¥0
Connection Settings	Application Protocol	
Communication Settings	Select the type of the protocol which shall be used at application layer.	
PLC Protocol Settings	Modbus TCP	
Extended Settings Address Space Definition		
-Data	Next > Cancel Help	1
Settings		
ata Source - Modbus.		

Enter [Trace1].



Enter the Trace (Ethernet) address.

*	Configuration1 - Softing dataFEED OPC Suite - Running (Demo Mode)	X
Configuration View Local Applicat	tion Help	
*	Controller / Device Connection Wizard	
P Data	PLC Protocol Settings On this wising gaps the PLC specific parameters for the current data source connection can be configured. Connection: Traces - Protocol Hodbus TOC	
Connection Settings	Hodbus protocol settings Spedry special parameters for the actual Modbus connection. Sare Address 1 0 star Address 0 10 star Address 0 10 star Address 0 10 star Modess 10 star Modess 0 10 star Modess 0	%
Communication Setti PLC Protocol Settin Extended Settings Address Space Defini		
Data	< Back Next > Pinish Cancel	Help
Settings		
Data Source - Modbus.		

Select [Start Address 1].

	Configuration1 - Softing dataFEED OPC Suite - Stopped	D X
Configuration View Local Application	Help	
	Controller / Device Connection Wizard	
Date	Extended Settings On the includ cape the extended settings for the current data source connection can be configured. Connection: Trace1 - Protocol: Modular TCR. Detended Read Settings Activate read colonization and specify the gap between the block areas in bytes. Very Read Optimization on System point Activate cycle read and specify the time interval at which the server send read requests to the R.C. Very Cycle: Read Read Deterval 1000 res C	
Communication Setting PLC Protocol Settings Extended Settings Address Space Definito	Caud Max P. Presh Caucel Heb	Û

▶ Select [Next >] to continue the installation process.

Configuration View Local Application	Help	Configuration1 - Softing dataFEED OPC Suite* - Stopped	_ 0 ×
rofting		Data Source - Modbus	-
	2	Controller / Device Connection Wizard	
Data Source Deta Source Medbur CorC Sover	Conection Bettings Connection Bettings Commissions Bettings PACP reace Bettings Address Space	Address Space Definition Definition of the standard constant case is defined. The Definition of the standard constant case is defined samuely, reported from a The Definition of the constant of the standard definition. The tasks case is defined samuely, reported from a The Definition of the standard definition of the last case is defined samuely. The Definition of th	11 10 70
Data Destination Settings			

Select [Import].



▶ Select "BioPAT[®] Multi Trace" or "BioPAT[®] Trace" (single).



► Continue with [Next >].

2		Configuration1 - Softing dataFEED OPC Suite* - Stopped	- • ×
rofting		Data Source - Modbus	
	10	Controller / Device Connection Wizard	
Data Source Modbus	Addi Conse Pict Mat Mat	ress Space Definition where drags the balance state is the state of th	11 10 10 10 10
Dic Server	Connection Settings Communication Settings PLC Protocol Settings Extended Settings Address Space Definition	Import Results 27% term inputed. Boort accessibly combined.	
Data Destination Settings		Triah Nob	1

► Confirm import with [Finish].

Conferentian View Local Analysis	Hele.	Configuration1 - Softing dataFEED OPC Suite* - Stopped	L	- 0 ×
rofting		Data Source - Modbus		
Data Source Data Source Media Orc Snive	Connection Settings Communition Settings RC Protection Settings External Settings External Settings Address Space	Controller / Device Connection Witand Address Space Definition Controller / Device Connection Witand Controller State Address and the state and envices Controller State Address and the state and address Controller State Address and the state and address and the state addres	narvala, legetal fina a	11 10 10 10
Data Destination				
Settings				

- \triangleright What is imported will be displayed.
- ▶ Confirm the import with [Finish].

25

a contraction of the state of t		c	Configuration	n1 - Softing dataFEED OPC Suite* - Stopped	
rofting	Controllers and D	Nevices	s and devices.	Data Source - Modbus	
AUK AN	-				10
A Kulling	Tracel	Modbus 19	Address 92 168 120 231	Visite allowed Dot Read/Milte SD-TCP-1000 mr	IX
Data Source					1 3
-					2
Modbus		100		the second s	×
				Softing dataFEED OPC Suite	8
BOPC OPC Server			he actual config	uration has been changed. Do you want to save these changes?	
				Ves No Cancel	
Data Destination					

- ▷ The program is closed. The configuration of the OPC[®] Server is completed.
- After saving, confirm the prompt with [Yes].

3.4 Verifying the Correct Display of Values



Start the verification with [Demo Client / NEW].



 Select the OPC[®] Server via "Softing dataFEED OPC Suite -Configuration".

	Softing OPC Toolkit Demo Client
File Edit Session View Help	
New Open Save Properti	ies Delete Stop Connect Start
 ⊕ OptaAccess ⊕ Opcdar///Softing.OPC.DF.C.	B Coods ///Sdirg UPC.0F.Corligeration I.0A.1/(0A/710CC:Sc:0-4687/61F24F78C0055000) B System B Facel B Troot I B Discone B Procest Data B Statu B MarkStatu B Statu B Markstatu B Value1
< III > . Ready	OPC Servers DA Browse DA Items AE Browse AE Events AE Conditions Errors

▶ Select desired items from the "Browsing Tree".

							Softing OP	C Classic Demo	Client			
File Edit	Session Upon	Save	Properties	× Doloto	X Stop	Connoct	Start					Write
	Group Group Group Trac	e.Process	Data.V:	m Trace.Proce Trace.Proce	ssDola.V	Value 0 0	Quality	TmeStanp 11:50:40:245 11:50:50:680	Result	Server cocida /// cpcda ///	Group group group	
< leady			> <u>OF</u>	C Servers] [DA Browse	DA Items [AE Browse A	E Events AE Conditi	one Errore	J		

► Verify displayed values.

MFCS Shell	[MEL15500W7 -	■ ×
File Run View	Help	
👷 🖬 🖬 🔳	DoE NYM 1 8	
the second	Configuration Management	39

▶ Start the "MFCS Shell" - "Configuration Management".

V	MFCS	SCMA [MEL15500W7 (local)/Jürgen]		• •
C Configure Non-Annual Hol Configure Non-Annual Hol Configure Non-Annual Hol San Configureton As Ext	Configuration Manager Presets that: //immo Variable team Type Transmitten Manager Manager	CMACS with Database MACSCOM ADDE CMACS with Database MACSCOM ADDE CARES with Database MACSCOM ADDE Control Link Control Link	S Config Nedly Config A& Aguntan Netign	
	SUIIST Cycl Totalige Cycl TURB Cycl YeldC Cycl ACD DOU FLOW DOU CCDW DOU	ic Vanidale Bootat_Q ic Vanidale Biostat_Q ic Vanidale Biostat_Q ic Vanidale Biostat_Q / Controller Biostat_Q / Controller Biostat_Q	Print	
		i Consoliar Biossa <mark>n,</mark> G v		

 Create variables in "MFCS/win" via the "Configuration" menu (see "BioPAT[®] MFCS/win" Operating Instructions).

Process Unit:	To Process Unit:	To Control Unit:	3	
Change Template	Natahara	0000		
C:\MFCS_win\Datab	(c) → ↑ ↓ This PC → Local Disk (C:) → MFCS_win → Database → Trace	v C Search	Trace ,0
ariable Name	Organize 👻 New folder			· · · •
	E Desktop	^ Name	Date modified	Type Si
	Downloads	MFCSCUST.MDB	28.05.2015 10:52	Microsoft Access
	t This PC			
	Particip Particip Portug Documents Documents Music Pictures Videoc			
	Participo Participo Toris PC Documents Documents Music Pfotures Videos Local Disk (Co)			
	Particip Tris PC Decuments Downloads Music Pictures Videos Local Disk (C) C HP SECOREX (D)	~ <		

- Select "Change Template ..." and select the appropriate template database.
- ▶ Select the desired "Configuration" from the list.



Enter the variables in the parameter list.

B		MFC	SCMA [MEL15500W7 (local)/Jürgen]		- D ×
Fie Configure Maintenance Help	8	Load / Transfer Configuration	1	3	
	Process Unit: BioPAT Trace (Qual) Change Template Database C:M#CS. win\Database\Trace	To Process Unit: Romeo	To Control Unit:	8	
	Verdala Rase II Actor Construction Reveal of the Reveal of the Reveal of the Reveal of the Reveal Reveal of the Reveal of the		1) Consider 1) Co	Valabe Valabe Modify X Cordig Aktifian Bronge Arecage Pain tal	
Form View					

- \triangleright This list is displayed.
- ▶ Select [Select All].
- ▶ Select storage locations [To Process Unit] and [To Central Unit].
- ▶ Select [Unselect All].
- ▶ Select [Copy Configuration] and confirm.
- \triangleright The installation has now been fully completed.

File Configure Maintenance Help	micacinik (incensional) (rocal) /aligent	
E	Load / Transfer Configuration	
Load/Transfer Sugar From: "BuPAT Trace (Qual)" for 'Romeo'	To Poscera Uaik To Caustal Uaik B C 0 0 12 Poscera - Trace - WCSCUST Mote WCSCUST Mote	
10 %	Normal Conclusion Conclusion The second se	

Confirm with [OK].End with [Exit].

				MFCSCMA [MEL155	00W7 (local)/Jürgen]		
The MFC: modificati database. Modificati Be sure to User:	S/win Configurati ions of the config ions to the config o update the con en	nn has been modified. It is wation. Press "Backup co putation are already implem figuration with "File"/ "Upo Rev No: 2,019	necessary to fill in comments which alguration" to create a new backup ented and will not be affected by th late Configuration" from the MFCS7 change: 01.07.20	describe the of the configuration e backup. win Shell 16 10.04.03	abase\MFCSCONF.MD New Process Unit		
Comment: History:	Date Time 10.06.2016 09.21 15.05.2016 12.42 17.05.2016 17.54	Rev. User 115 2.019 Juligen 02 2.019 Juligen 40 2.017 Juligen	Conment Indi	1	system Trace Trace Trace Broth, Q Broth, Q Broth, Q Sample Data Manager Sample Data Manager Sample Data Manager Sample Data Manager Sample Data Manager Sample Data Manager Sample Data Manager	Variable: Wariable: Modiy X Config AR	
	17.00.2010 17.00		Backup Configuration	Exit without Backup	System Biostal_Q Trace Biostal_Q Biostal_Q Biostal_Q Trace	Algorithms Storage Average	
			Ethiotocc EX02 EX02 GlucinalogOut Gluccalbra@enven Gluccalbra@countStd Gluccalbra@countStd Gluccalbra@countStd Gluccob	Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable Cyclic Vaiable	Tisce Biostat, Q Biostat, Q Biostat, Q Tisce Tisce Tisce Tisce Siostat, Q	Print	
Agw			μ				N.N [

- \triangleright This display appears.
- Enter the changes in "Change History" for traceability.
- ► Finish the verification of the correct display of values with [Backup Configuration].

3.5 Initial Operation of the OPC® DA Server

Ensure the following prerequisites before initial operation:

- ▶ The values on the device must also be displayed via the OPC[®]!
- ▷ The display of the values via the OPC[®] shows the correctly executed installation.
- Perform all further operational steps according to the corresponding operating instructions (see Chapter "1.2 Accompanying Documents", page 4).

4 Specifications

Important:

The approved "MFCS/win 3.0 Support Pack 2015" must be installed on the computer in order to install the BioPAT® Trace OPC® DA server.

General Hardware Requirements

- Intel[®] Core[™] i3 or higher
- Main memory 8 GB (minimum: 4 GB)
- Hard disk 500 GB (minimum 250 GB)
- Graphic card
- DVD-ROM drive
- Mouse
- Uninterruptable Power Supply Unit (UPS)
- Operating System:

General System Requirements

- Microsoft Windows 7 SP1
- Microsoft Windows 8.1
- Microsoft Windows Server 2008 R2 Sp1
- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2

Operating System Language

- English
- German (other languages are not supported)

5 Appendix

5.1 Additional Documentation

- In addition to these installation instructions, you will find all necessary technical documentation in the operating manual on this software.
- If customer-specific modifications were implemented, the appropriate documents can either be attached to the operating manual or to the software as separate documents.

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The information and figures contained in these instructions correspond to the version date specified below.

Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice. Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

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