Services

# Operating Instructions Fieldgate SFG500 Operation as Access Point





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Product version	Manual	Changes	Remarks
1.00.xx	BA00071S/04/en/01.11	Original manual	
1.00.xx	BA00071S/04/en/02.12	Editorial Chapter 3	IP LAN1: 10.126.84.100
		Chapter 5.1.1 Chapter 5.3.4 Chapter 5.3.5	New DTM function: PROFIBUS Scan Range New DTM function: Set Device Address Addition text concerning new function
1.01	DA000716 (04 /am (02 12	General Chantan F	Renumbering, TOC, maex
1.01.XX	BA000715/04/en/03.13	Chapter 5.2 Chapter 5.3	Embedded Web Server added Additional functions restructured
		Update New CD	
1.02.xx	BA00071S/04/en/04.14	Chapter 1 General	New, IT security Screenshots and texts updated
1.03.xx	BA00071S/04/en/05.14	No change	
1.04.xx	BA00071S/04/en/06.14	No change	
1.05.xx	BA00071S/04/en/07.14	No change	
1.06.xx	BA00071S/04/en/08.15	No change	
1.07.xx	BA00071S/04/en/09.15	Chapter 3.2.1 Chapter 5.2.5 Chapter 5.3.4	Screenshots and texts updated Screenshots and texts updated Screenshots deleted and texts updated

## **Revision History**

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# 1 Safety

## 1.1 Designated use

Fieldgate SFG500 is a system component that provides an independent access route to a PROFIBUS network. It may be used in a variety of applications that are supported by specific operating modes. The operating modes are determined by an optional memory card (Fieldgate Module SFM500).

Without memory card, Fieldgate SFG500 has the basic operating mode Access Point. In this case, it acts as an Ethernet gateway with adaptive PROFIBUS Master Class 2 capabilities to support FDT-based plant asset management host applications, e.g. FieldCare. The various operating modes are described in their respective manuals, see Chapter 1.4.

## 1.2 Installation, commissioning and operation

Fieldgate SFG500 has been designed to operate safely in accordance with current technical safety and EU directives. Field devices, links, junction boxes, cables and other hardware used in conjunction with the Fieldgate SFG500 module must also be designed to operate safely in accordance with current technical safety and EU directives.

If devices are installed incorrectly or used for applications for which they are not intended, or if the Fieldgate SFG500 module is not configured correctly, it is possible that dangers may arise. For this reason, the system must be installed, connected, configured, operated and maintained according to the instructions in this and the associated manuals: personnel must be authorised and suitably qualified.

## 1.3 Operational safety

When using Fieldgate SFG500 as an Access Point, the instructions in Chapter 1.3 of BA0070S/04/en, Fieldgate SFG500: Installation and Commisioning, shall be observed.

## 1.4 IT security

We only provide a warranty if the device is installed and used as described in the Operating Instructions. The device is equipped with security mechanisms to protect it against any inadvertent changes to the device settings.

IT security measures in line with operators' security standards and designed to provide additional protection for the device and device data transfer must be implemented by the operators themselves.

## 1.5 Supplementary documentation

Table 1-1 indicates the documents, planned and realized, containing safety relevant information, installation, commissioning and operating instructions for Fieldgate SFG500. This manual decribes the use of Fieldgate SFC500 as a access point, i.e. without memory card. The configuration of Fieldgate SFG500 for each of its various operating modes is described in a separate manual.

The manual PROFIBUS guidelines contains information on how to design and install a PROFIBUS network, in particular on how to ground the network in order to avoid electromagnetic interference on the bus.

All documentation available at the time of release is included on the Fieldgate SFG500 CD-ROM and can be installed by default in **Start=>Programs=>Endress+Hauser=Fieldgate SFG500=>Manuals** from it.

Tab. 1-1: Fieldgate SFG500 Documentation
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Description	Document type	Designation	Order No.
Fieldgate SFG500; Installation and Commissioning	Operating manual	BA00070S/04/EN	71293271
Fieldgate SFG500; Operation as Access Point	Operating manual	BA00071S/04/EN	71293273
Fieldgate SFG500; Operation as Asset Monitor	Operating manual	BA00072S/04/EN	71293275
Fieldgate SFG500; Operation as Process Monitor	Operating manual	BA00074S/04/EN	-
Fieldgate SFG500; Getting Started	Operating manual	BA00073S/04/A2	71293265
PROFIBUS Guidelines	Operating manual	BA00034S/04/EN	56004242

## 1.6 Conventions and icons

In order to highlight safety relevant or alternative operating procedures in the manual, the following conventions have been used, each indicated by a corresponding icon in the margin.

Safety conventions

Icon	Meaning
	DANGER! This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.
	WARNING! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.
	CAUTION! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.
NOTICE	NOTE! This symbol contains information on procedures and other facts which do not result in personal injury.

#### **Explosion protection**

lcon	Meaning
Æx>	<b>Device certified for use in explosion hazardous area</b> If the device has this symbol embossed on its name plate it can be installed in an explosion hazardous area in accordance with the specifications in the certificate or in a safe area
<u>Ex</u>	<b>Explosion hazardous area</b> Symbol used in drawings to indicate explosion hazardous areas. Devices located in and wiring entering areas with the designation "explosion hazardous areas" must conform with the stated type of protection
<u>×</u>	Safe area (non-explosion hazardous area) Symbol used in drawings to indicate, if necessary, non-explosion hazardous areas. Devices located in safe areas still require a certificate if their outputs run into explosion hazardous areas.

#### **Electrical symbols**

Icon	Meaning
	<b>Direct voltage</b> A terminal to which or from which a direct current or voltage may be applied or supplied
$\sim$	Alternating voltage A terminal to which or from which an alternating (sine-wave) current or voltage may be applied or supplied
<u> </u>	Grounded terminal (FE) A grounded terminal, which as far as the operator is concerned, is already grounded by means of an earth grounding system
	<b>Protective grounding (earth) terminal</b> A terminal which must be connected to earth ground prior to making any other connection to the equipment
$\bot$	Signal ground (GND) A terminal on to which the shield of a signal cable can be connected
$\Delta$	<b>Equipotential connection (earth bonding)</b> A connection made to the plant grounding system which may be of type e.g. neutral star or equipotential line according to national or company practice
$\widehat{\mathbf{A}}$	Electrostatic discharge A terminal or location at which an electrostatic discharge might cause damage to the module circuitry

# 2 Function and System Design

## 2.1 Function

When no Fieldgate Module SFM500 is inserted in the Fieldgate SFG500's memory card slot, it acts as an Access Point. In this mode, it provides a parallel path to a PROFIBUS DP network and is used together with FieldCare, Endress+Hauser's plant asset management system. The SFGNetwork DTM is provided for use with FieldCare and offers the following functions:

- Scanning for all Fieldgate SFG500s in the same Ethernet IP address domain
- Scanning for all PROFIBUS DP/PA devices in the connected segment
- Access to the functions embedded in the web server, e.g. live list, settings etc.

The DTM is supplied as standard with FieldCare from version 2.09.xx or can be installed from the Set-up CD ROM provided with Fieldgate SFG500.

## 2.2 System design

Fig. 2.1 shows Fieldgate SFG500 operating as an Access Point in a PROFIBUS network.



Fig. 2-1: System architecture for Fieldgate SFG500 operating as an access point

The control network comprises one or more PLCs or DCSs and one or more PROFIBUS DP segments. Connected to the PROFIBUS DP segment are PROFIBUS DP slaves, Remote I/Os and segment couplers or links. Through its Ethernet port (LAN1), Fieldgate SFG500 allows FieldCare access to access a PROFIBUS DP segment. If there is more than one segment in the PROFIBUS DP network, a separate Fieldgate SFG500 is required for each.

Fieldgate SFG500 can be configured by a web browser, e.g. Internet Explorer, from any computer in the local area network or via its second Ethernet port (LAN2). In the latter case, Fieldgate SFG500's DHCP server will supply an IP address to the connected computer.

## 3 Commissioning

#### NOTE!

NOTICE

- This section describes the steps to physically commission Fieldgate SFG500 for use as a access point only.
  General commissioning for use is described in BA00070S/04/en, Fieldgate SFG500:
  - Installation and Commissioning, commissioning for other modes in the associated manual, see Chapter 1.4.
- The manual assumes that the Fieldgate battery has been inserted and the network is up and running.

## 3.1 Preliminaries

#### 3.1.1 Computer IP properties

The LAN1 and LAN2 interfaces of Fieldgate SFG500 allow communication with a computer via the integral Web Server. Before starting, check the following:

- Internet Protocol TCP/IP is installed on your computer and is active
- You have administration rights for your computer and network
- You have an set of IP addresses that have been authorized by your IT department
- Any proxy server for your Internet Browser is disabled

Fieldgate SFG500 is supplied with the following default IP addresses:

- LAN1: 10.126.84.100
- LAN2: 192.168.253.1

Fieldgate SFG500 acts as a DHCP server on the LAN2 service interface and will automatically assign any computer connected an IP address, provided the latter has been configured to receive it. For later use in a PROFIBUS network, Fieldgate SFG500 will normally require a fixed address on the LAN10perations interface which must be set in the Web Server.

#### NOTE!

NOTICE

 Most computers which are used in a company network will already be set up to accept an IP address from a DHCP server. If you computer is used in a control system, however, it is possible that it has a fixed address. In this case, change the computer's IP properties as described in Appendix A.

#### 3.1.2 Web browser

Most Web browsers used in company networks operate via a proxy server. This must be disabled if the computer is to communicate with the Fieldgate SFG500 Web Server. The procedure below applies to Windows XP and Internet Explorer.

Right click on the Internet Browser icon on your desktop and select **Properties** 
 The **Properties** dialog opens

eneral Securi	y Privacy Conte	nt Connections	Programs Advan			
nome page -						
To cleace nome page cabs, type each address of its ow						
ht	p://engine.endress	.com/	<u> </u>			
1			<u>+</u>			
	Use <u>c</u> urrent	Use default	Use blank			
Browsing histo	rv		-			
Dele	ete temporary files,	history, cookies, sa	ved passwords,			
and and	web form information	on.				
Г	Delete bro <u>w</u> sing his	ory on exit				
		Delete	Settings			
Search		<u></u>	a			
~	nne search defaults		Settings			
Cha	ingo son un aoracia					
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Tabs Cha	nge how webpages	are displayed in	Settings			
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Tabs Cha Tabs Cha tab: Appearance -	nge how webpages	are displayed in	Settings			
Tabs Cha Tabs Cha tab: Appearance -	nge how webpages	are displayed in	Settings			
Appearance -	nge how webpages s.	are displayed in	Settings			
Appearance - Colors Colors Colors	nge how webpages	are displayed in Fogts by your system adm	Settings			
Appearance - Colors	nge how webpages s. Languages <u>tings</u> are managed	are displayed in Fogts by your system adm	Settings			

Now click on the tab Connections followed by the button LAN Settings
 The Local Area Network (LAN) Settings dialog appears

Au	tomatic configuration e of manual settings, i	may overri disable auti	de manu omatic c	ual setting onfigurat	gs. To ensure the
Г	Automatically detect	settings			
Г	Use automatic config	juration <u>s</u> cr	ipt		
	Address				-
Pn F	Use a proxy server f dial-up or VPN conne	or your LAI ctions).	N (These	e settings	will not apply to
	Address: proxy		Port:	80	Advanged
	D Bypass proxy set	rver For loc	al addre	sses	

- 3. Disable the proxy server by clicking on the check box
  The "x" disappears and the proxy fields go grey
- 4. Press **OK** to confirm you settings Press **OK** to close the **Properties** dialog
- 5. Your are now ready to connect with the Fieldgate SFG500 Web Server

## 3.2 IP address of LAN1 port

#### 3.2.1 Fieldgate SFG500 IP address

- 1. Make sure that your computer is connected to Ethernet port LAN2 with a crossover connection.
- 2. In your Internet browser enter the address of Fieldgate SFG500 LAN2 port: 192.168.253.1 and press **Enter**:
  - Elle
     Edit
     View
     Favorites
     Iools
     Help

     Image: Back
     Image: Second Se
- 3. The Web Server introduction page opens: Click on Login (above right) to enable changes
   Enter the User Name (admin) and Password (admin)
- 4. Open the Settings menu by clicking on the Settings tab of the Web Server
   Select Network Configuration

Fieldgate	e SFG500	Access Point	Endress+Hauser 🔣
Natwork Settings Date and Time Tag and Location Firmware Update	Network Set	lings	
	LAN1 Settings	R	
Firmware Update	IP Address LAN1	10 126 100 51	
1 23	Netmask LAN1	255 255 255 0	
	Default Gateway	10.126.100.1	
	<b>VONS</b> Setting		
	Preferred DNS	10.126.16.21	
	Alternate DNS		
	Apply		

- 5. Enter the desired IP Address, Network Mask and Default Gateway
   Press Apply to apply the changes to Fieldgate SFG500
- 6. Click on **Logout** (above right) to secure the web page again

#### 3.2.2 IP address of the FieldCare computer

Before FieldCare can use Fieldgate SFG500 to connect to the PROFIBUS network, the computer on which it is running must be given an address in the same domain.

- 1. Proceed as described in Appendix A and give your computer a fixed address in the same address domain as that of Fieldgate SFG500
- Connect the computer to Ethernet port LAN1 with a crossover connection
   If you are using a switch or router a patch connection is required
- 3. Test the connection by using the DOS command "ping xxx.xxx.xxx", where X is Fieldgate SFG500's address
  - If the test is OK, you are ready to create a FieldCare project.
  - If there is no connection, trouble-shoot according to the instructions in BA00070S/04/en, Fieldgate SFG500: Installation and Commissioning

## 3.3 Fieldgate SFGNetwork DTM

When Fieldgate SFG500 is used with FieldCare, it operates exclusively as a pure Access Point. To this end, a CD is included in the scope of supply which contains the latest documentation and DTMs. These DTMs must first be installed in FieldCare before FieldCare SFG500 can be used.

#### NOTE!

• The procedure described below is **not required for FieldCare Version 2.09.xx or greater**, as in this case the SFGNetwork DTM is installed as part of the DTM library.

#### 3.3.1 Installing the SFGNetwork DTM

- 1. Insert the CD ROM supplied with Fieldgate SFG500 into the CD ROM drive
- 2. In the Setup menu which appears, select the option for the **CommDTM**
- 3. Install the DTM by following the instructions

#### 3.3.2 Update the FieldCare DTM catalog

Before it can be used, the SFGNetwork DTM must be integrated in the FieldCare DTM Catalog.

#### NOTE!



NOTICE

- For FieldCare Standard and Professional, administrator rights are required to update the DTM catalog if these are activated
- 1. Start FieldCare and, if necessary, log on as administrator
- In the Start-Up Screen dialog, press Continue and in the FieldCare dialog press Open

   An empty Project workspace appears
- 3. Right-click on the DTM Catalog menu and select Update...
  - The **Update DTM Catalog** dialog appears
  - Press **Update** to start the search for new DTMs (make take several minutes)
- 4. When the search is complete, any new DTM will be shown in the left-hand pane:
  - Select the SFGNetwork DTM and press Move >>
  - Press **OK** to close the dialog and register the changes
  - You are now ready to start

#### NOTE!

NOTICE

• If a SFGNetwork DTM was already in the catalog, it is automatically updated and does not appear as "New" in the left-hand panel

## 4 FieldCare

## 4.1 Single segment with Pepperl+Fuchs coupler

## 4.1.1 Architecture

When operating with a single segment with Pepperl+Fuchs coupler, the component architecture is for example as shown in Fig. 4.1. Fieldgate SFG500 is connected to the Ethernet backbone via the LAN 1 Ethernet socket and to the PROFIBUS DP segment. The segment itself is connected to a PLC or DCS, which acts as Class 1 master. PROFIBUS PA devices are connected to the network via the coupler.



Fig. 4-1: Architecture for single segment

To see all the devices on the PROFIBUS DP/PA segment, FieldCare requires:

- SFGNetwork DTM
- All Device DTMs



- Open FieldCare by a double click on its desktop icon
   If necessary enter the user name and password
- 2. Press **Continue** to close the introductory page:



3. Press **Open** to create a project

FieldCare					×
FieldCare	R			Endres	5+Hauser 🖽
New Existing	Recent				1
	Scanning		HART ¢	Profibure	Sanira
	Wizard	(MultiDrop)	(Point-to-Point)	PROFIdtm	(ReadWin)
Service (Flow) S FXA193 / 291 1	Gervice (Level, Pressure) FX	Service (CDI) FXA291	Service (CDI) USB	FF H1 SFC162	FF H1 (NI)
Frankes an empli	, project				
	polect				
Help				Open	Cancel

4. A project is created



#### Add the SFGNetwork CommDTM 4.1.3

1. In the network view, right click on **Host** and select **Add Device**:



- 2. The CommDTM catalog opens

  - Select SFGNetwork
    Press OK to add the CommDTM to the Host

Device		Version	Class	Manufacturer
CommDTM PROFIBUS D	P-V1	V4.0.0.9 (2011	-	Trebing & Himst
F H1 CommDTM		V1.5 (2009-08		Endress+Hauser
FXA520		V1.05.05 (2007	-	Endress+Hauser
HART Communication		V1.0.37 (2010		CodeWrights G
HART OPC Client		V2.0 (2009-05		Endress+Hauser
IPC (Level, Pressure) FX4	193/291	V1.02.12 (2008	-	Endress+Hauser
PCP (Readwin) TXU10/F	XA291	V1.01.14 (2009	•	Endress+Hauser
PROFIdtm DPV1		V 2.11(115) (20	-	Softing Industrial
SFC173 CommDTM		V1.01.01 (2008	·	Endress+Hauser
SFGNetwork		V0.01.10 (2011	dtmSpecific	Endress+Hauser
•			]	Ľ
	Device ty	pe (DTM) information		
Device:	SFGNetw	ork		
Manufacturer:	Endress+	lauser		
Device ID / SubID:	42/DT_E	H_SFGNetwork		
Manufacturer ID:	21			
Hardware revision:				
Software revision:				
Device revision:				
Profile revision:				
Profile revision: s generic:	No			

3. The SFGNetwork CommDTM is added to the Network view

籠 FieldCare - Profession	al - DB							
Eile Edit View Device	e Operation	DTM <u>C</u> atalog	Tools	Window	E⊻tras	Help		
0 🎽 🖬 🎒 🛍	🞒   🗅	📼 🛛 🗽 💿						
Network								Ψ×
Network Tag≜	Connection	Channel	Address	Device	type (DT)	4)	Physical Device	
🛄 Host PC								
SFGNetwork	4⊳		0	🔠 SFC	GNetwork			
-								

#### 4.1.4 Scan for Fieldgate SFG500

Right-click on the SFGNetwork node and select Connect to put the CommDTM online

 The Connection arrows turn green

🕅 FieldCare - Professional - DB	
Eile Edit Yiew Device Operation DTM ⊆atalog Iools Window Extras Help	
🗋 🗅 🖆 🖬 🎒 🖾 💭 📖 🗽 🐄 🖄 🧷 🖻 🍢 😤 🏺 F 🕞 🖆 1	1 -1 -1 0
Network	ф <b>х</b>
Network Tag ← Connection Channel Address Device type (DTM) Physical	Device
Host PC	
SFGNetwork	
Be Delete Device	
Launch Witzard	
Edurar median.	
📑 Greate network	
Verify network	
Generate device list	
Device tune (DTM) infe	
Device Type (D111) III 0	
🙀 Connect	
2 Read from device	
😻 Write to device	

2. Right-click on the SFC500 Network node and select Create Network

🁖 FieldCare - Professional - DB	
Eile Edit View Device Operation DTM ⊆atalog Tools Window Extras Help	
D 😅 🖬 🚳 📾 🚇 🔍 📾 🗽 📚 🖄 🖉 🗑 🕵 🛠 🖡 🗸 🖆 🖓	
Network	4 X
Network Tag A Connection Channel Address Device type (DTM) Physical Device	
Host PC	
C SFGNetwork	
P Delete Device	
Laurch Wigard	
Create network	
🖉 Verify network	
Generate device list	

3. FieldCare searches for any SFG500s in the Ethernet network and adds them to the network view

👫 FieldCare - Professional - DB						<u>_     ×</u>
Eile Edit View Device Operation	DTM <u>⊂</u> atal	og <u>T</u> ools <u>W</u> indow	E <u>x</u> tras	Help		
0 🗳 🖬 🍯 👛 🛱 🗅	📖 🛛 🐄	📜 🏷 😫	🛃 🌋	等 F • ] 栏 恒	-4 10 0	
Network						<b>Р X</b>
Network Tag -	Connection	Channel	Address	Device type (DTM)	Physical Device	
Host PC						
SFGNetwork			0	EII SFGNetwork		
SFG500_DB0001240A0	$\diamond$	SFGNetworkChannel	1	🖽 SFG500		

4. If only one is found, it connects and opens the SFG500 CommDTM

ft SFG500_DBC	0001240A0 (Configuration)	
	Device Name: 5FG500	
n 🖻 🧇		
Identification:	Serial Number	
Serial Number:	/ DB0001240A0	
IP Address:	10.126.84.201	
Device Tag:	/ SFG500_DB0001240A0	
Connected	💿 🕕 Database	

- 5. If no DTM is found, it is possible that the UDP ports are blocked
  - Either unblock as described in Appendix B (you will need administrator rights)
  - Or add the CommDTM manually (right-click on SFG500 Network node, Add Device) and configure it by hand, see Chapter 5.1

#### 4.1.5 Scan for devices

1. Right-click on the SFG500 node and select **Create Network** 



- 2. FieldCare scans the PROFIBUS segment to which Fieldgate SFG500 is connected for devices
  - All devices found are added to the network

飛 FieldCare - Professional - DB					_ 🗆 ×
Eile Edit View Device Operation D	TM <u>⊂</u> atalog <u>T</u> ools <u>W</u> ind	low E⊻tras <u>H</u> elp	)		
D 🛩 🖬 🎒 🕋 🛱 🔯 🛛	l 🛛 🗽 📚 🛛 😫 🛷 [	2 🍢 🕿 👰	F -   € € =	10	
Network					<b>4 x</b>
Network Tag -	Connection Channel	Address	Device type (DTM)	Physical Device	
Host PC					
SFGNetwork		0	EII SFGNetwork		
SFG500_DB0001240A0	SFGNetwork	Channel 1	🔣 SFG500		
	₫ <sub>b</sub> SFG500Char	nnel 7	🔠 Cerabar M / PMx	CERABAR M	
	4 <sub>b</sub> SFG500Char	nnel 42	Micropilot M / FM	FMR 25X	
	√p SFG500Char	inel 55	🔠 Prosonic M / FM	PROSONIC M	

- If any of the devices has a DTM of quality less than "1", the Scanning Result dialog
  opens and **OK** must be pressed before the devices are added to the network
- 3. If only one device is found, its DTM will be opened automatically
  - If more than one device is found, and the "Connect after scanning" option is selected in Extras..., the message below must be acknowledged with **OK**, and the device DTMs must be opened manually

Connect	after scanning
•	"Connect after scanning" is marked, but more than one device was found. The option will be ignored for this scanning session. Please connect and open DTMs manually!
	ОК

#### 4.1.6 Open a device DTM

- 1. Right-click on the node of the device you want to open and select  ${\bf Connect}$ 
  - The communication arrows turn green to indicate that it is online

🚺 FieldCare - Professional - DB							_ 🗆 🗙
Eile Edit View Device Operation	DTM <u>⊂</u> atalog	<u>T</u> ools <u>₩</u> i	ndow E <u>x</u> tras ļ	Help			
🗅 🛸 🖬 🕌 🕋 🖾 🔍	🗉 🛛 🏷 🐱		🖹 🔤 🛣 🕯	🖗 F 🕞		12 0	
Network							4 ×
Network Tag A	Connection	Channel	Addre	ss Device ty	/pe (DTM)	Physical Device	
Host PC							
SFGNetwork		OF CHARMEN	d Channel 1	EH SFGN	letwork		
ET100		Shanetwo	rkunannei i	El SFUS	lou Loc M. 7 DM v	CERARAR M	
	4	SEG50	Add Device		hilot M / FM	EMB 25X	
LT201	٩Ď	SFG50 🕏	Delete Device		nic M / FM	PROSONIC M	
			Launch Wizard				
			Device type (DTI	M) info			
			Connect				
		2	Read from devic	e			
		8	Write to device				

2. Right-click on the node of the device again and select **Online Parametrize** 

🅂 FieldCare - Professional - DB					×
Eile Edit View Device Operation DT	M⊆atalog <u>T</u> ools <u>W</u> indow E⊻t	ras <u>H</u> elp	<b>)</b>		
0 🛩 🖬 🥌 🕋 🏛 🔍 📼	) 🐄 💘 🖹 🤌 🗎 🎇	2 \$	F • 4 1 1		
Network				1	×κ
Network Tag 🗠 🛛 🚺	Connection Channel	Address	Device type (DTM)	Physical Device	
Host PC					
E 🌜 SFGNetwork		0	EII SFGNetwork		
E & SFG500_DB0001240A0	SFGNetworkChannel	1	EN SFG500		
PT100	Concentration of the second se	7	🔠 Cerabar M / PMx	CERABAR M	
	D BC Mod Device		Micropilot M / FM	FMR 25X	
<sub>9€</sub> LT201 ₫	Delete Device		Ell Prosonic M / FM	PROSONIC M	
	Launch Wizard				
	Device type (DTM) info.				
	Disconnect				
	Read from device				
	Se Illeba ba davias				
	Murice co device				
	Offline Parameterize				
	Online Parameterize				
	Observe				

- 3. The DTM of the selected device is opened
  - The device can now be configured according to the instructions in its operating manual



## 4.1.7 Store the project

Right-click on the File menu and select Save

 The Save Project As window appears

🕂 Save Project As	×
FieldCare	Endress+Hauser
Existing	
Look In: 🞯 Projects	<b></b>
) Tosti	
Project name: SGF500 Network E	
Help	Save Cancel

- Enter a name for the project and press Save
- 2. The project can now be opened from the **Existing** tab in the project window that opens when FieldCare is started

## 4.2 Multiple segments with transparent couplers

#### 4.2.1 Architecture

When operating with multiple segments and Pepperl+Fuchs couplers the component architecture might be as for example as shown in Fig. 4.2. For simplicity the devices connected to Segments

2 – 5 are not shown. All Fieldgate SFG500s are connected to the Ethernet backbone via the LAN 1 Ethernet socket and share a common Ethernet IP address domain. One Fieldgate SFC500 is connected to each PROFIBUS DP segment. The PROFIBUS DP segments do not necessarily have to be connected to a single PLC. PROFIBUS PA devices are connected to the PROFIBUS DP segments via couplers.



Fig. 4-1: Architecture for multiple segments

To see all the devices on the PROFIBUS DP/PA segment, FieldCare requires:

- SFGNetwork DTM
- All Device DTMs

#### 4.2.2 Create a FieldCare project

#### NOTE!

- The dialogs for this procedure are identical to those in Chapter 4.1.2
  - Open FieldCare by a double click on its desktop icon

     If necessary enter the user name and password
  - 2. Press **Continue** to close the introductory page:
  - 3. Press **Open** to create a project
  - 4. A project is created

#### 4.2.3 Add the SFGNetwork CommDTM

#### NOTE!

NOTICE

NOTICE

NOTICE

- The dialogs for this procedure are identical to those in Chapter 4.1.3
- 1. In the network view, right click on **Host** and select **Add Device**:
- 2. The CommDTM catalog opens
  - Select SFGNetwork
  - Press **OK** to add the CommDTM to the Host
- 3. The **SFGNetwork** CommDTM is added to the Network view

#### 4.2.4 Scan for Fieldgate SFG500

#### NOTE!

- The dialogs for this procedure are identical to those in Chapter 4.1.4
- Right-click on the SFGNetwork node and select Connect to put the CommDTM online

   The Connection arrows turn green
- 2. Right-click on the SFC500 Network node and select Create Network
- 3. FieldCare searches for any SFG500s in the Ethernet network
  - If the "Connect after scanning" option is selected in Extras..., the message below must be acknowledged with **OK**, as more than one Fieldgate SFG500 has been found



4. FieldCare adds the Fieldgate SFG500s found to the network view

👖 FieldCare - Plant Asset Management (	PAM) - DB					
Eile Edit View Device Operation DTM	I⊆atalog <u>T</u> oo	ls <u>W</u> indow E⊻tras Į	telp			
D 🛩 🖬 🥌 🕋 🎒 🔘 🔳	] 🕵 📚   1	1 🖓 🖹 🙀 😤 1	<b>9 F -</b> ]€			
Network						4 ×
Network Tag	Connection	Channel	Address	Device type (DTM)	Physical Device	
Host PC						
Green SFGNetwork	•		0	E SFGNetwork		
	<b>₫</b> ⊳	SFGNetworkChannel	1	🖽 SFG500		
	$\triangleleft_{\triangleright}$	SFGNetworkChannel	2	🖽 SFG500		
🔊 SFG500_DB0008240A0	4Þ	SFGNetworkChannel	3	🖽 SFG500		
	4Þ	SFGNetworkChannel	4	🖽 SFG500		
SFG500_E20009240A0	<b>⊲</b> ⊳	SFGNetworkChannel	5	🔠 SFG500		

- 5. If no DTM is found, it is possible that the UDP ports are blocked
  - Either unblock as described in Appendix B (you will need administrator rights)
  - Or add the CommDTM manually (right-click on SFG500 Network node, Add Device) and configure it by hand, see Chapter 5.1

#### 4.2.5 Scan for devices

1. Select a SFG500 node, right-click on it and select **Connect** 

FieldCare - Plant Asset Management       File     Edit       Yew     Device Operation       D     D       D     D	nt (PAM) - DB DTM ⊆atalog Iools Window Extras □ 1 1 1 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2	Help <b>ॐ F →</b>	4 to		
Network Network Tag Host PC GSEGNetwork	Connection Channel	Address	Device type (DTM)	Physical Device	<del>4</del> ×
SFG500_D80004240A0 SFG500_D8000240A0 SFG500_D80008240A0 SFG500_E20007240A0 SFG500_E20007240A0	Add Device nel     Add Device nel     Aunch Wizard nel     Launch Wizard nel     Create network     Verf network     Senerate device list     Device type (DTM) info     Read from device     Write to device	1 2 3 4 5	## \$F6500 (20 \$F6500 (20 \$F6500 (20 \$F6500 (20 \$F6500 (20 \$F6500 (20 \$F6500		

2. Right-click on the connected SFG500 node and select Create Network

🕕 FieldCare - Plant Asset Management (F	PAM) - DB				
Eile Edit View Device Operation DTM	⊆atalog <u>T</u> ools <u>W</u> indow E <u>x</u> tras <u>H</u>	elp			
	🖢 🕱 🙀 🤌 😫 🕎 😤 🍣	F • [€			
Network					4 ×
Network Tag	Connection Channel	Address	Device type (DTM)	Physical Device	
Host PC		1000			
SFGNetwork		0	EII SFGNetwork		
SFG500_D90004240A0	the state of the s		🔣 SFG500		
	39E Add Device	2	🖽 SFG500		
SFG500_DB0008240A0	Belete Device	3	🖽 SFG500		
	< Launch Wizard	4	ET SFG500		
		5	🖽 SFG500		
	🔛 Create network 🚽				
	🤌 Verify network				
	Generate device list				

- 3. FieldCare scans the PROFIBUS segment to which Fieldgate SFG500 is connected for devices
  - If any of the devices has a DTM of quality less than "1", the Scanning Result dialog opens and **OK** must be pressed before the devices are added to the network
  - If more than one device is found, and the "Connect after scanning" option is selected in Extras..., the Connect after scanning message below must be acknowledged with **OK.** All devices found are then added to the network view

🎢 FieldCare - Plant Asset Management (P/	AM) - DB				
File Edit View Device Operation DTM C	atalog <u>T</u> ools	Window Extras Help			
	ta 🗽 😫	A 🖹 🍢 🛠 😒	F		
	50 00 1 m				
Network	Connection	Channel	Address	Disuise tune (DTM)	Discussed Discusso
How PC	Connection	Charinei	Addless	Device type (D1M)	Physical Device
E C SEGNetwork			0	EN SEGNetwork	
SEG500 D90004240A0		SEGNetworkChannel	1	EN SEG500	
	4p	SFG500Channel	12	THE IT emp / TMT 184 / P	TMT184
	dp.	SFG500Channel	13	Temp / TMT 184 / P	TMT184
	d <sub>b</sub>	SFG500Channel	14	137 iT emp / TMT 184 / P	TMT184
	4b	SFG500Channel	15	IT iT emp / TMT 184 / P	TMT184
	4b	SFG500Channel	16	🖽 iTemp / TMT 184 / P	TMT184
	4b	SFG500Channel	17	🔠 iTemp / TMT 184 / P	TMT184
	4b	SFG500Channel	18	🖽 iTemp / TMT 184 / P	TMT184
	<b>₫</b> ⊳	SFG500Channel	19	🔠 iTemp / TMT 184 / P	TMT184
	4p	SFG500Channel	20	🖽 iTemp / TMT 184 / P	TMT184
0×300B04	4Þ	SFG500Channel	21	🖽 iTemp / TMT 184 / P	TMT184
	4Þ	SFG500Channel	22	🖽 iTemp / TMT 184 / P	TMT184
0×300EB5	<b>₫</b> ⊳	SFG500Channel	23	🖽 iTemp / TMT 184 / P	TMT184
	٩Þ	SFG500Channel	24	🖽 iTemp / TMT 184 / P	TMT184
	٩Þ	SFG500Channel	25	🖽 iTemp / TMT 184 / P	TMT184
JE ITEMP TMT84 _54	٩Þ	SFG500Channel	74	🔠 iTEMP / TMT84 / PA	ITEMP TMT84
SFG500_DB0002240A0	$\triangleleft \triangleright$	SFGNetworkChannel	2	EH SFG500	
	٩Þ	SFGNetworkChannel	3	🖽 SFG500	
SFG500_E20007240A0		SFGNetworkChannel	4	EH SFG500	
SFG500_E20009240A0	4	SFGNetworkChannel	5	🛤 SFG500	

- If only one device is found, and the "Connect after scanning" option is selected in Extras... (default setting), FieldCare adds it to the network view, connects and opens the DeviceDTM
- 4. Repeat Steps 1 to 3 for all other Fieldgates that were found
- 5. The Device DTMs can be opened and the project stored as described in Chapters 4.1.6 and 4.1.7 respectively

## 4.3 Segment with Siemens link

#### 4.3.1 Architecture

When operating with a Siemens DP/PA Coupler or Link, the component architecture might be as for example as shown in Fig. 4.3. The Fieldgate SFG500 is connected to the Ethernet backbone via the LAN 1 Ethernet socket. PROFIBUS PA devices are connected to the network via the Siemens Coupler/Link.



Fig. 4-1: Architecture for Siemens coupler/link

To see all the devices on the PROFIBUS DP/PA segment, FieldCare requires:

- SFGNetwork DTM
- Licensed Trebling and Himstedt CommDTM DP/PA link
- All Device DTMs

## 4.3.2 Create a FieldCare project

#### NOTE!

#### NOTICE

- The dialogs for this procedure are identical to those in Chapter 4.1.2
- Open FieldCare by a double click on its desktop icon

   If necessary enter the user name and password
- 2. Press **Continue** to close the introductory page:
- 3. Press **Open** to create a project
- 4. A project is created

## 4.3.3 Add the SFGNetwork CommDTM

#### NOTE!

- NOTICE
- The dialogs for this procedure are identical to those in Chapter 4.1.3
- 1. In the network view, right click on Host and select Add Device:
- 2. The CommDTM catalog opens
  - Select SFGNetwork
  - Press **OK** to add the CommDTM to the Host
- 3. The **SFGNetwork** CommDTM is added to the Network view

#### 4.3.4 Scan for Fieldgate SFG500

#### NOTE!

NOTICE

- The dialogs for this procedure are identical to those in Chapter 4.1.4
- Right-click on the SFGNetwork node and select Connect to put the CommDTM online

   The Connection arrows turn green
- 2. Right-click on the SFC500 Network node and select Create Network
- 3. FieldCare searches for any SFG500s in the Ethernet network and adds them to the network view



- 4. If only one Fieldgate is found, its DTM is opened automatically
- 5. If no DTM is found, it is possible that the UDP ports are blocked
  - Either unblock as described in Appendix B (you will need administrator rights)
  - Or add the CommDTM manually (right-click on SFG500 Network node, Add Device) and configure it by hand, see Chapter 5.1

#### 4.3.5 Scan for the Coupler/Link

- 1. If necessary, select the SFG500 node, right-click on it and select Connect
- 2. Right-click on the connected SFG500 node and select  $\ensuremath{\textbf{Create Network}}$

Network							<b>ф</b> 3
Network Tag		Connection	Channel	Address	Device type (DTM)	Physical Device	
Host PC							
😑 🏹 SFGNetwork				0	EN SFGNetwork		
SFG500_E20009240A0	t Add ⊉ Dele Laur ≧ Crea	Device ite Device nch Wizard ate network	SFGNetwork	4	HH SFG500		
	🖉 Verif	iy network erate device list					

- 3. FieldCare scans the PROFIBUS segment to which Fieldgate SFG500 is connected for the Siemens Link
  - The Create Network Scanning result dialog opens
  - Press **OK** to add the DP/PA Link CommDTM to the network

15F65000va 💭 New device.   J 🛛 🚺 2	Control TM DP/Fis Last	412 111	Add to project
NO.40E ID	PRIORICE PROTIBION	Constitution	OR ADD Line
Manufacturer		Trebing 1 H	limited Proceflautomatic
Ident Number (SSD) / Sub ID 0x8	052	0.0052	
DEVICE_MAN_ID		42	
HARDWARE_REVISION			
SOFTWARE_REVISION		_	
Device revision:			
In new second		No	
Used Poincel PR	IRBUS DPA/1	PROFIBUS	DP/V1
DEVICE_SER_NUM			
But address 7			
Used Potecol PRO DEVICE_SER_NUM	DRBUS DP/V1	PROFIBUS	DP/V1
But address 7			

4. The **DP/PA Link** CommDTM is added to the Network view



- If only one device is found, and the "Connect after scanning" option is selected in Extras... (default setting), FieldCare adds it to the network view, connects and opens the DTM
- If more than one device is found, and the "Connect after scanning" option is selected in Extras..., the Connect after scanning message below must be acknowledged with **OK**. All devices found are then added to the network view

#### 4.3.6 Scan for devices

- 1. If necessary, select the DP/PA Link node, right-click on it and select Connect
- 2. Right-click on the connected DP/PA Link node and select Create Network



- 3. FieldCare scans the segment to which the DP/PA Link is connected for devices
  - The Create Network Scanning result dialog opens
    Press **OK** to add the devices to the network

Tranvel : Addr. Status	Office/Device	OTM Quality	Device type (DTM)	Class (DTM)	Action
[Chanvel 0.29] 👥 New device found	-/DP/PA-Couples	7 5	Flaceholder FieldDevi.	4	Add to project
Channel 0.52 Rev device loand	-A.T 501	101	Protoric M / FMU4a	Level	Add to project
[Channel 0.72] Mew device found	JFT 502	리 1	Provid / 72 / PA / Vt.	Flow	Add to project
01M assignment details for device at [Char 01M quality level [2] Assigned	vel 0.5) I device type (0.1M)	wactly matches the	e hadware information with a	el IDs and revision.	8
TM quality level	vel 05) I device type (01M)	wactly matches the	e hardware information with a mation	al IDs and revision	e type (DTM) information
DTM assignment details for device at [Diar DTM quality level DEVICE_30	vel 0.5) I device (per (0.1M)	macily matches the Online device into PROSONIC M	e hardware information with a mation	I Ds and revision Suggested device Process M / FM	e type (DTH1) internation U4x / Ph / V4.vs
DTM assignment datals for device of [Due STM quality level DEVICE_ID Manufacture	vel 05) I device type (DTM)	nactly matches the Online device into PROSONIC M Endress-Hauser	t hardware information with a mation	Suggested device Poscesc M / PM Enderse-Hause	e type (DTM) information U4a / PA / V4.ss
DTM ansignment databilitis device at [Dian STM quality level DEVICE_0 Manufacturer Iden Number (SSD) / Sub ID	vel 05) I device (gor (01M)	Colore device into Priloro device into Priloro DNIC M Endreus-Hauser Da152C	e hardware information with a mation	Suggested device Process: M / FM Enders: H AND 0x152C: 0x8700/	e type (DTM) information U4a / PA / V4 nc Prozonic M / DMU4a / Pi
DM assignment details for device at [Dare DM quality level DEVECE _0 Manufactures: (dev Tuncker (SSD) / Sub (D) DEVECE _VAND	vel 0.5) I device type (D.T.M.)	Codes device into Online device into PROSONIC M Endress-Hauser Ox152C 17	e hardware information with a mation	Suggested device Posses M / FM Enders H Asse 0x152C 0x8700/ 17	e type (DTM) information Uku / PA / V4 as Prozonic M / PM344 / Pi
DM assignment datals for device at [Dian 21M quality level [2] Assigned DEVICE_ID Marufacture: GeVICE_ID DEVICE_IDD DEVICE_IDD DEVICE_IDD	viet (3.5) I device (goe (3.11M)	Colors device into PROFICIENC M Endress-Hauser De1520 17	e hardware information with a	Suggested device Process: M //FM Endess-Hause 0x152: 0x8700/ 17	e type (D TM) information U4z / Ph. / V4.as Prozonic: M. / DMU4a / Pi
TM assignment datals for device at [Dise TM quality level DEVICE_0 Manufacture: GenT Number (SSD) / Sub ID DEVICE_MAN_E REVISION SDTWARE_REVISION SDTWARE_REVISION	vel 0.5) I device type (DTM)	Process of the second s	e hatdware information with a	Suggested device Postonic M / PM Enderso-Hause Do152C 0x8700/ 17	e type (DTM) information U4x / PN / V4 as Prozonic M / FMU4x / Pi
DN augment data is divice al (Dar 21M quality level 21	vel 0.5) I device type (DTM)	exactly matches the PRO10NIC M Enderso-Hause 0x1520 17 01.04 00 01.04 00	e hadovare information with a	II Ds and revision Suggested device Process M / FME Enders-Hause 0x150C 0x3700/ 17 01.54 00	e type (DTM) information U4x / PA / V4 ax Prozonic M / D4U4x / Pr
21M augment data to device at [Dar 21M quality level	evel (D 5) device typer (D T M)	Indexe devices the Prilos devices into Prilos devices into Prilos devices Prilos	a had-ware information with a	5 opported device Process M / PM Enders-Kause 0x1502 0x1700/ 17 01.04.00 3.0	n type (D TM) information Uke / Ph. / V4. sc Prozonic M. / Pht.Uke / Pr
21M acaptivent data is drive at [Diar 21M quality level CEVACE_ID Manufactor (DSD) / Sub D DEVACE_VDL MANUFACE_REVISION DDFVACE_REVISION DDFVACE_REVISION DEVACE VDL Revision Faile encions	vel 05) denice (gor (01M)	Index device the Price device into Price Date in Locketter Hause (a) 520 17 01 04 00 01 04 00 30	e haddware information with a	Suggested device Process M 2 PM Enderso-Hause 0x152C 0x1500 17 01.04.00 3.0 No	e type (DTM) information Use / Ph / V4 as Prozonic M / FMU4a / Pr
D1M acquirement datals for device at [D1an D1M quality level D1M quality level D1M quality level Manufactures D1M (D1 data) D1M (D1 data)	vei (DS) denice type (DTM)	exactly matches the PROSONIC M Endress-Hause Online Content 17 01.04.00 01.04.00 3.0 PROFIBUS DP/V	i had-sare information with a	Suggested device Posses M / PM Duberg-Haare 0152C 045700/ 17 01.04.00 3.0 No PROFIDUS DPA	n type (D TM) information U4: 7 Ph 7 V4 as Prozonic M 7 D4U4x 7 Pr
D1M acaptivent data is divise at [D1m D1M quality level D2M quality level D2M quality level Marukation Marukation Marukation D2M quality (D2M D2M D2M D2M D2M D2M D2M D2M D2M D2M	vei () 51 denice (yper ()) TM) -	Dates desice into PROSONIC M Endems-Hause Dat520 17 01.04.00 01.04.00 3.0 PROFIBUS DPA/ VMUNR 01D	s had-sare information with a	Suggested device     Suggested device     Poscess M / PML     Enders-HAauee     On152: 048700/     17     01.54.00     30     No     PROFIBUS DPA	e type (DTM) information Urley / PA / VA as: Photone: M / THEU4e / Pr /1
21M acaptive data is diverse at [Diar DN quality level 21M quality level	vei (DS) denice type (DTM)	Interview device into PROSONIC M PROSONIC M Enders-Haute 04520 01.04.00 01.04.00 01.04.00 01.04.00 3.0 PROFIBUS DPA/ VHLINR 01D 5	e haddware information with a	II Ds and revision Suggested device Postonic M / FM Dudenzi V-Kaute 0x1502, 0x4300/ 17 01.54.00 3.0 No PROFIBUS DPA	n type (DTM) information Jac./ Pr. / Vita. Prozonic M./ (McUla./ Pr 1
DN augment deals to decise al DW- DN quarks here and the second an	vvel (51) device typer (() TM)	Priority matches the PROSONIC M PROSONIC M Endress-Hause 0x152C 17 0x104.00 0x104.00 0x104.00 3:0 PROFIBUS DPAV VMLNB 01D 5	t had-uar information with a	Suggested device     Suggested device     Postors M / Thil     Defense H-Kause     Da152X: 0x87007     17     01.04.00     3.0     No     PROFIBUS DPA	e type (DTM) information Uda / Ph / Y4 as Prozenc: M / THEU4a / Ph 71

4. If the "Connect after scanning" option is selected in Extras..., the message below must be acknowledged with **OK**, as more than one device has been found



5. The devices are added to the Network view

Network					<b>д X</b>
Network Tag	Connection	Channel	Address	Device type (DTM)	Physical Device
Host PC					
SFGNetwork			0	EN SFGNetwork	
SFG500_E20009240A0		SFGNetwork	4	EN SEG500	
- 12	<b>4</b> ⊳	SFG500Chan	7	OcommDTM DP/PA Link	
	٩Þ	Channel 0	5	ET Prosonic M / FMU4x /	PROSONIC M
	40	Channel 0	29	🐅 Placeholder FieldDevice	DP/PA-Coupler
FT 502(1)	<b>₫</b> ⊳	Channel 0	72	🔠 Prowirl / 72 / PA / V1	PROWIRL 72 PBUS

6. The Device DTMs can be opened and the project stored as described in Chapters 4.1.6 and 4.1.7 respectively

## 4.4 Segment with Stahl Remote I/O

#### 4.4.1 Architecture

When operating with a Stahl CPM 9440 Remote I/O, the component architecture might be as for example as shown in Fig. 4.4. The Fieldgate SFG500 is connected to the Ethernet backbone via the LAN 1 Ethernet socket. PROFIBUS PA devices are connected to the network via e.g. a transparent coupler. The 4–20 mA/HART devices are connected point-to-point to the Stahl Remote I/O, which in turn is connected to the PROFIBUS DP segment.



Fig. 4-1: Architecture for Stahl remote I/O

To see all the devices on the PROFIBUS DP/PA segment, FieldCare requires:

- SFGNetwork DTM
- Licensed Stahl CommDTM CPM 9440
- All PROFIBUS Device DTMs
- All HART Device DTMs

## 4.4.2 Create a FieldCare project

#### NOTE!

NOTICE

- The dialogs for this procedure are identical to those in Chapter 4.1.2
- Open FieldCare by a double click on its desktop icon

   If necessary enter the user name and password
- 2. Press **Continue** to close the introductory page:
- 3. Press **Open** to create a project
- 4. A project is created

## 4.4.3 Add the SFGNetwork CommDTM

#### NOTE!

NOTICE

NOTICE

- The dialogs for this procedure are identical to those in Chapter 4.1.3
- 1. In the network view, right click on Host and select Add Device:
- 2. The CommDTM catalog opens
  - Select SFGNetwork
  - Press **OK** to add the CommDTM to the Host
- 3. The **SFGNetwork** CommDTM is added to the Network view

#### 4.4.4 Scan for Fieldgate SFG500

#### NOTE!

- The dialogs for this procedure are identical to those in Chapter 4.1.4
  - Right-click on the SFGNetwork node and select Connect to put the CommDTM online

     The Connection arrows turn green
  - 2. Right-click on the SFC500 Network node and select Create Network
  - 3. FieldCare searches for any SFG500s in the network and adds them to the network view



- 4. If only one Fieldgate is found, its DTM is opened automatically
- 5. If no DTM is found, it is possible that the UDP ports are blocked
  - Either unblock as described in Appendix B (you will need administrator rights)
     Or add the CommDTM manually (right-click on SFG500 Network node, Add Device)
  - and configure it by hand, see Chapter 5.1

#### 4.4.5 Scan for the Stahl Remote I/O

- 1. If necessary, select the SFG500 node, right-click on it and select Connect
- 2. Right-click on the connected SFG500 node and select Create Network

Network	5						<b>4</b>
Network Tag		Connection	Channel	Address	Device type (DTM)	Physical Device	
Rost PC							
SFGNetwork				0	EN SFGNetwork		
SFG500_E2000924040	tse Add Se Dele Laur	Device te Device nch Wizard	SFGNetwork	4	HH SFG500		
	Creat       Verif       Gene	ite network iy network erate device list					

- 3. FieldCare scans the PROFIBUS segment to which Fieldgate SFG500 is connected for the Remote I/O
  - The Create Network Scanning result dialog opens
  - Press **OK** to add the Stahl CPM 9440 CommDTM to the network

SFG5000ha. 🖬 New device. 🚽	1 2 CFN 9460	Additional and a second
		Print of provid
NEW D	Online device information	Suggested device type (DTH) intomation
Manufacture:		R. STAHL Schaltgenale GnEH
Ident Number (SSD) / Sub ID	De#39.	0+454/5440/22-01-21
DEVICE MAN ID		158
A REAL PROPERTY OF A REAL PROPER		
HARDWARE REVISION		
HARDWARE_REVISION SDFTWARE_REVISION		
HARDWARE_REVISION SOFTWARE_REVISION Device revision		
HARDWARE_REVISION SDFTWARE_REVISION Device revision Profile revision		
HARDWARE REVISION SOFTWARE REVISION Device revision Pacific revision Is genetic		No
HARDWARE_REVISION SOFTWARE_REVISION Device revision Polific revision Facility revision Is general: Used Protocol	PROBBUS DP/V1	No PROFIBUS DPA/1
HARDWARE_REVISION SOFTWARE_REVISION Device revision Pudie revision Is generic Used Putrocol DEVICE_SER_NUM	PROFIBUS DP.M1	No PRORBUS OP A1

4. The CPM 9440 CommDTM is added to the Network view

Network					Ф <b>х</b>
Network Tag	Connection	Channel	Address	Device type (DTM)	Physical Device
Host PC				Contraction and the second	
SFGNetwork			0	EH SFGNetwork	
SFG500_E20009240A0		SFGNetwork	4	EH SFG500	
CPM 9440	◆	SFG500Chan	120	X CPM 9440	

- If only one device is found, and the "Connect after scanning" option is selected in Extras... (default setting), FieldCare adds it to the network view, connects and opens the DTM
- If more than one device is found, and the "Connect after scanning" option is selected in Extras..., the Connect after scanning message below must be acknowledged with **OK**. All devices found are then added to the network view

#### 4.4.6 Scan for devices

- 1. If necessary, select the CPM 9440 node, right-click on it and select Connect
- 2. Right-click on the connected CPM 9440 node and select Create Network



- 3. The Select Communication Channel dialog appears
  - Press **OK** to scan all channels of the Remote I/O

he selected device make the channel you want to	asters se o scan fo	veral channe r connected	ls. Please select devices.
128 Channels:			
Channel name			
🗹 Slot 1 / Channel 0	HART		
🗹 Slot 1 / Channel 1	HABT		
Slot 1 / Channel 2	HART		
Slot 1 / Channel 3	HABT		
Slot 1 / Channel 4	HABT		-
•			

4. The devices found are added to the Network view



- If only one device is found, and the "Connect after scanning" option is selected i n Extras... (default setting), FieldCare adds it to the network view, connects and opens the DTM
- If more than one device is found, and the "Connect after scanning" option is selected in Extras..., the Connect after scanning message below must be acknowledged with **OK**. All devices found are then added to the network view
- 5. The Device DTMs can be opened and the project stored as described in Chapters 4.1.6 and 4.1.7 respectively
- 6. The CPM 9440 DTM also provides an overview of the connected HART devices
  - Right-click on the CPM node and select Additional Functions=>HART Live List

c1				Cha	innel				Description
5100	0	1	2	3	4	5	6	7	This dialog represent the state of all channels of an IS1 STAHL Remote I/0.
1	•	1	-	-		-		-	Refresh cycle: 1s (new devices up to 15s
2	•	-	-	-	-	-	-	-	
3									Legend
4									-
5									HART communication OK
6									
7									- no response from HART device
8									Scan deactivated
9									no HåBT module detected
10									
11									Neset IOM
12									
13									D.C. LOL
14									Herresh State
15									📀 CPM Online 🛛 💣 Refresh
16									

# 5 DTM for Fieldgate SFG500

This chapter contains a short description of the functions obtainable via the Fieldgate SFG500 Device DTM. All functions are called by right-clicking on a connected DTM and selecting the appropriate context menu. This procedure is not illustrated by screenshots.

## 5.1 Configuration

## 5.1.1 Fieldgate SFG500 CommDTM

#### NOTE!

NOTICE

• The identification parameters can be changed only when Fieldgate SFG500 is offline The configuration menu opens the Fieldgate SFG500 CommDTM.

Right-click on the SFG500 node and select **Configuration** 
 The SFG500 Device DTM opens:



2. The parameters have the following significance:

Parameter	Meaning
Identification	<ul> <li>If the SFG500 Device DTM is added manually to a network, the drop down menu allows three ways of identifying the device to which the DTM is to be connected.</li> <li>Serial Number: The Serial Number entry box is enabled. <ul> <li>Enter the serial number of the associated device and press Enter</li> <li>The connection is made and the IP address and Device Tag are displayed</li> </ul> </li> <li>IP Address: The IP Address entry box is enabled <ul> <li>Enter the IP address of the associated device and press Enter</li> <li>The connection is made and the serial number and Device Tag are displayed</li> </ul> </li> <li>Device Tag: The Device Tag entry box is enabled <ul> <li>Enter the device tag of the associated device and press Enter</li> <li>The connection is made and the serial number and Device Tag are displayed</li> </ul> </li> </ul>
Serial Number	<ul><li>Displays the serial number of the connected device</li><li>When offline, the box can also be used to reconnect to a different device, see above</li></ul>
IP Address	<ul><li>Displays the IP address of the connected device</li><li>When offline, the box can also be used to reconnect to a different device, see above</li></ul>
Device Tag	<ul> <li>Displays the Device Tag of the connected device.</li> <li>When offline, the box can also be used to reconnect to a different device, see above</li> <li>When online, the box can be used to change the tag of the connected device</li> </ul>
Start Address	PROFIBUS address from which Fieldgate SFG500 starts scanning for devices on the bus - Default value = 0
End Address	PROFIBUS address at which Fieldgate SFG500 stops scanning for devices on the bus – Default value = 126

#### 5.1.2 Proxy Server Configuration

#### NOTE!

#### NOTICE

• The proxy can be changed only when Fieldgate SFG500 is offline

Some dialogs of the SFG500 CommDTM are Web pages provided by the connected Fieldgate SFG500. In order to connect to the Web server, it may be necessary to configure the proxy server.

 The proxy server is configured in the advanced settings of the configuration dialog. These are selected by enabling the tree view of the dialogue with the leftmost button in the toolbar.

FL SFG500 (Configuration)		
Device	Name: SFG500	EH
<b>•</b> •		
Configuration	Proxy server: automatic 💌	
<i⊅ connection<="" no="" td=""><td>atabase 🛐</td><td></td></i⊅>	atabase 🛐	

2. The options in the drop-down menu are as follows:

Parameter	Meaning
automatic (default)	First the system settings are used. If this does not work, option no Proxy Server is used
system settings	The settings defined in the Web browser are used
no proxy	The proxy server is disabled

## 5.2 Embedded Web Server

The Embedded Web Server menu presents all functions provided by the Fieldgate Web Server in a DTM environment.

- 1. If not already done, right-click on the SFG500 node and select **Connect** to put the Fieldgate DTM online
- 2. Right-click on the SFG500 node and select **Additional Functions =>Embedded Web Server** 
  - The PROFIBUS Live List window opens

Start Network Settin	gs Information								18. Mar 2014 (	07:29:0	16 🔚 🖽 Log
PROFIBUS Live List PROFIBUS Monitor PROFIBUS Settings	PROFIBU:	S Live List	2				3 N 15 S	laster (Mxxx) laves (Sxxx)	1 OK 0 Diag 6 OK 4 Diag	0 Fail	1 Off 1 SFC 5 Off 109 Fre
Slave Settings	#000	M001	M002	M003	#004	\$005	\$006	//007	500	08	1009
	#010	#011	#012	#013	#014	#015	#016	#017	#01	18	#019
	#020	S021	S022	#023	#024	#025	#026	#027	#02	Z8	#029
	\$030	#031	#0.32	#033	#034	\$035	#036	\$037	#03	38	8039
	#040	#041	#0.42	#043	#044	#045	#046	#0.47	#04	48	#049
	#050	#051	#052	#053	#054	#055	#056	\$057	#03	58	#059
	#060	#061	#062	#063	S064	\$065	\$066	//067	506	88	\$069
	#070	#071	#072	#073	#074	\$075	#076	#077	#07	78	#079
	#080	#081	#08Z	#083	#084	#085	#086	#087	#08	88	#089
	#090	#091	#092	#093	#094	#095	#096	#097	10%	38	8099
	#100	8101	#102	#103	#104	#105	#106	#107	#10	38	#109
	#110	#111	#112	#113	#114	#115	#115	#117	#11	8	#119
	#120	#121	#122	#123	#124	#125	#126				

- 3. Navigate through the menus by clicking on the **Tabs** or the **sub-menu** items
  - The number of tabs that appear depends upon whether Fieldgate Module SFM500 is in use and the functions that it supports

#### 5.2.1 PROFIBUS live list

The PROFIBUS live list shows all devices that can be seen by the selected Fieldgate SFG500 when it is listening to the bus. If the listener was active during the initialization of the slaves, the slave ID is shown.

#### Grid View

1. Right-click on the SFG500 node and select **Additional Functions =>Embedded Web Server** then click on the **Network** tab.

#### 2. Click on **PROFIBUS live list**

- The SFG500 PROFIBUS Live List window opens:

Start Network Settin	gs Information								18. Mar 2014 07:29:1	36 🚟 🖽 Log
PROFIBUS Live List PROFIBUS Monitor PROFIBUS Settings	PROFIBU	S Live List						3 Master (Moox) 15 Slaves (Sxor)	1 OK 0 Dag 0 Fai 6 OK 4 Diag 0 Fai	1 0ff 1 SF0 5 0ff 109 Fre
Slave Settings	#000	M001	M002	M003	#004	\$005	\$00	6 //007	\$008	1009
	#010	#011	#012	#013	#014	#015	#01	6 #017	#018	#019
	<b>#020</b>	S021	S022	#023	#024	#025	#02	6 #027	#028	#029
	\$030	#031	#0.32	#033	#034	\$035	#03	5 <b>S037</b>	#038	8039
	#040	#041	#042	#043	#044	#045	#04	6 #047	#048	#049
	#050	#051	#052	#053	#054	#055	#05	6 <b>S057</b>	#058	#059
	#060	#061	#062	#063	S064	\$065	\$06	6 //067	\$068	\$069
	#070	#071	#072	#073	#074	\$075	#07	6 #077	#078	#079
	#080	#081	#08Z	#083	#084	#085	#08	6 #087	#088	#089
	#090	#091	#092	#093	#094	#095	#0.9	6 #097	#098	#099
	#100	8101	#102	#103	#104	#105	#10	6 #107	#108	#109
	#110	#111	#112	#113	#114	#115	#11	5 #117	#118	#119
	#120	#121	#122	#123	#124	#125	#12	6		

3. The various elements have the following significance:

Element	Meaning
Overview table	<ul> <li>Indicates the number of devices on the bus, together with their type and status</li> <li>Green: Device in cyclic data exchange, status OK</li> <li>Yellow: Device in cyclic data exchange, has diagnostic message</li> <li>Orange: Device failed to enter into cyclic data exchange</li> <li>Grey: Device is present, but not in cyclic data exchange</li> <li>Blue: Fieldgate SFG500</li> </ul>
Show List View/ Show Grid View	Toggles between a grid and list view of the connected devices
Live list matrix	Indicates the type and PROFIBUS address of the slave Mxxx: master with PROFIBUS address xxx Syyy: slave with PROFIBUS address yyy Colour code: as in overview

# ve List window opens:

#### List View

- 4. Click on Show List View to display a list of connected devices

  - Click on a device to show its details
    Click on Show Grid View to return to the view above

Start Network Settin	gs Informatio					19. Mar 201	4 09:27:53 🔳 🛙	Logic
PROFIBUS Live List PROFIBUS Monitor PROFIBUS Settings	PROFIB	US Live L	ist		(	3 Master (Mxxx) 1 DK 0 D 15 Slaves (5xxx) 6 DK 4 D	ng O Fail 1 Off ng O Fail 5 Off	1 SFC 109 Free
Slave Settings	Slave 74	Ident 🐾	Device Type 🛛 🐾	Vendor	🛰 Tag		Status	-
	5008	0x8754		Unknown			OFF	1
	5021	0x05D3		Unknown			OFF	
	5022	0x152C	PROSONIC M	Endress+Hauser	ProSonic	M_22	OK	
	S030	0x071D	3730-4	SAMSON AG	-/-		OFF	
	5035	0x8052	DP/PA-Link (IM157)	SIEMENS AG			OFF	
	S037	0x1503	FE8 24	Endress+Hauser	TSR125		OFF	
	S057	0x1523	TMT184	Endress+Hauser	_TR8T1		OK	-
	5064	0x1522	FMR 2XX	Endress+Hauser	Micropilo	tM_2	OK	
	5065	0x152C	PROSONIC M	Endress+Hauser	Prosonic	M_1	OK	
	S066	0x152D	LEVELFLEX M	Endress+Hauser	Levelflex	M_2	DIAG	
	5068	0x1522	FMR 2XX	Endress+Hauser	Micropilo	tM_1	OK	
	S069	0x152D	LEVELFLEX M	Endress+Hauser	Levelflex	M_1	OK	
	S075	0x06CA	ND9000PA	Metso Automation	CSV101		DIAG	1
	Details o	f Slave: [S	037] FEB 24 "TSR12	5 "				
	Serial Numb HW Revision SW Revision	er: 43301 1: 1.1 1: 1.3	95					

5. The various elements have the following significance:

Element	Meaning
Overview table	Indicates the number of devices on the bus, together with their type and status <ul> <li>Green: Device in cyclic data exchange, status OK</li> <li>Yellow: Device in cyclic data exchange, has diagnostic message</li> <li>Orange: Device failed to enter into cyclic data exchange</li> <li>Grey: Device is present, but not in cyclic data exchange</li> <li>Blue: Fieldgate SFG500</li> </ul>
Show Grid View/ Show List View	Toggles between a grid and list view of the connected devices
Live list	
Slave	Slave ID in PROFIBUS live list (Saaa, aaa = PROFIBUS address)
Ident	Slave device type
Device Type	Manufacturer's device type identification
Serial No.	Manufacturer's serial number of the slave
Tag	Tag No. of the slave
Status	Status <ul> <li>OK: No events since last restart of live list</li> <li>DIAG: Device has issued a diagnostic message since last restart of live list</li> <li>FAIL: Device has failed since last restart of live list</li> </ul>
Details of Slave	
Vendor	Manufacturer or vendor of the selected slave
HW Revision	Hardware revision of the selected slave
SW Revision	Software revision of the selected slave

#### 5.2.2 PROFIBUS Monitor

- 1. Right-click on the SFG500 node and select **Additional Functions =>Embedded Web Server** then click on the **Network** tab.
- 2. Click on **PROFIBUS Monitor** 
  - The PROFIBUS Monitor window opens:

art Network Setting	as Information					19. Mar 2014 09:33:28	Cos Los
IOFIBUS Live List IOFIBUS Monitor IOFIBUS Settings	Start time: 19. Mr	2 2014 09:13:11	Restart				
Slave Settings	Slave 🐁	Ident 🐁	Status 🐾	# Inits	🐁 # Diag 🗅	🔽 Last Diagnosis Time	*
	S005	0x09A8	DIAG	0	2	19. Mar 2014 09:13:18	
	5006	0x801E	DIAG			19. Mar 2014 09:24:32	
	5008	0x8754	OFF	0	0	19. Mar 2014 09:13:19	
	S021	0x05D3	OFF	0	0	19. Mar 2014 09:13:19	
	5022	0x152C	ок	0	0	19. Mar 2014 09:33:22	
	5030	0x071D	OFF	0	0	19. Mar 2014 09:13:19	
	S035	0x8052	OFF	0	0	19. Mar 2014 09:13:19	
	5037	0x1503	OFF	0	0	19. Mar 2014 09:13:19	
	5057	0x1523	OK	0	0	19. Mar 2014 09:13:20	
	S064	0x1522	OK	0	0	19. Mar 2014 09:13:20	
	5065	0x152C	ОК	0	0	19. Mar 2014 09:13:20	
	5066	0x152D	DIAG	0	2	19. Mar 2014 09:13:20	
	5068	0x1522	OK	0	0	19. Mar 2014 09:13:20	
	5069	0x1520	OK	n	n	19 Mar 2014 09-13-20	
	Details of S	lave; [S006]	ET 200M (1M	153-2) DF	PV1		

3. The parameters have the following significance:

Parameter	Mooning
Falalletel	Meaning
Restart	Restarts the PROFIBUS Monitor
Diagnostic table	
Slave	
Ident	Slave device type
Status	Status:
	<ul> <li>OK: No events since last restart of monitor</li> </ul>
	<ul> <li>DIAG: Device has issued a diagnostic message since last restart of monitor</li> </ul>
	<ul> <li>FAIL: Device has failed since last restart of monitor</li> </ul>
Init	Indicates the number of device initializations since the last restart of monitor
Diag	Indicates the number of diagnostic messages since the last restart of monitor
Last Diagnosis Time	Indicates the time of the last diagnostic message issued by the device
	- If there has been no message, the time of the last monitor restart is shown
Details of Slave	
Parameter String	Parameter string of selected slave (shown only after an initialization)
Config String	Configuration string of selected slave (shown only after an initialization)
Last Diagnosis	Diagnosis string of selected slave (shown only after an diagnostic message)

#### 5.2.3 **PROFIBUS Settings**

#### NOTE!

- NOTICE
- The set up of Fieldgate SFG500 is described in Chapter 7.2.7 of Operating Instructions BA00070S/04/en, Fieldgate SFG500 Installation and Commissioning

The PROFIBUS settings list shows the detected baudrate, the PROFIBUS address of the selected Fieldgate and detected bus parameters used by the Class 1 master. The window can be used to change the bus parameters, however, it is important to note that all the PROFIBUS DP devices, including couplers and links, connected to a particular network must have the same communication settings

- Right-click on the SFG500 node and select Additional Functions =>Embedded Web Server then click on the Network tab
- 2. Click on PROFIBUS Settings
  - The SFG500 PROFIBUS Settings window opens:



3. The parameters have the following significance:

Parameter	Description
Configuration Mode	
Auto Mode	Fieldgate SFG500 detects the PROFIBUS parameters and sets its own address - The detected PROFIBUS parameters are displayed - Overwriting is disabled
Passive Mode	Fieldgate SFG500 listens to the bus but does not enter traffic as Master Class 2 - FieldCare cannot be used with this mode
Manual Mode	<ul> <li>Writing is enabled and the user can set the PROFIBUS parameters</li> <li>Fieldgate must use the same parameters as all other PROFIBUS equipment otherwise communication will fail</li> <li>A return to manual mode will cause all changes to be lost and Fieldgate will detect the PROFIBUS parameter and set its own address</li> </ul>
Baudrate	
Baudrate	<ul> <li>Indicates the baudrate detected by Fieldgate SFG500</li> <li>To change the baudrate: <ul> <li>Select Manual mode</li> <li>Select a new baudrate from the pull-down menu and press Apply</li> <li>If the baudrate is in conflict with the one used by the master, a message appears</li> <li>Selecting Auto mode will cause all changes to be lost</li> </ul> </li> </ul>

Parameter	Description
Address Parameters	
Station Address	<ul> <li>Fieldgate SFG500 PROFIBUS DP address (Master Class 2) that it has assigned automatically to itself after listening to the bus</li> <li>To force a new address (0 - 126): <ul> <li>Select Manual mode</li> <li>Enter a new unoccupied address press Apply</li> <li>Selecting Auto mode will cause all changes to be lost</li> </ul> </li> </ul>
Highest Station Address	Indicates the address range that is scanned for token passing.
Timing Parameters	
Slot Time	Monitoring time – 'Wait for receipt' – of the senders (Requestor) of telegram for the acknowledgement of the recipient (Responder). After expiration, a retry occurs in accordance with the value of 'Max. telegram retries'.
Min. Station Delay Time	Shortest time period that must elapse before a remote recipient (Responder) may send an acknowledgement of a received query telegram. The shortest time period between receipt of the last Bit of a telegram to the sending of the first Bit of a following telegram.
Max. Station Delay Time	Longest time period that must elapse before a Sender (Requestor) may send a further query telegram. Greatest time period between receipt of the last Bit of a telegram to the sending of the first Bit of a following telegram. The Sender (Requestor, Master) must wait at least for this time period after the sending of an unacknowledged telegram (e.g. Broadcast only) before a new telegram is sent.
Quiet Time	Time delay that occurs for modulators (Modulator-trip time) and Repeaters (Repeater-switch time) for the change over from sending to receiving.
Setup Time	Minimum period "reaction time" between the receipt of an acknowledgement to the sending of a new query telegram (Reaction) by the Sender (Requestor).
Token Rotation Time	Pre-set nominal Token cycling time within which the Sender authorization (Token) will cycle around the ring. How much time the Master still has available for sending data telegrams to the Slaves is dependent on the difference between the nominal and the actual token cycling time.
Gap Update Factor	Factor for determining after how many Token cycles an added participant is accepted into the Token ring. After expiry of the time period G*TTR, the Station searches to see whether a further participant wishes to be accepted into the logical ring.
Max Retries Limit	Number of times the Fieldgate will try to establish communication with a device before it flags it as faulty
Button	
Apply	Applies any changes to Fieldgate SFG500

#### 5.2.4 Slave Settings

**Slave Settings** allows the user to change the address of the selected PROFIBUS device, e.g. during commissioning of the network. It has exactly the same function as **Set Device Address**, see Chapter 5.3.2.

- Right-click on the SFG500 node and select Additional Functions =>Embedded Web Server then click on the Network tab
- 2. Click on Slave Settings
  - The PROFIBUS slave settings window opens:

Fieldgate SFG500		Endress+Hauser 🖽	
Start Network Settings	Information	19. Mar 2014 09:35:32 🚟 🖽 Login	
PROFIBUS Live List	PROFIBUS Slave Settings		
PROFIBUS Monitor	Set Device Address		
Slave Settings	Current Address		

- 3. Select the address of the device whose address must be changed from the **Current Address** drop-down menu
- 4. Select the address the device should be given in the **New Address** drop-down menu
- 5. Press **Apply** to write the change of address to the device
  - Pressing **Cancel** will discard all changes and leave the device with its old address
  - A possible reason for a failure to change an address is that the device is locked
- 6. After an address change the device concerned will no longer be connected to its DTM:
  - Either change the DTM address to the new device address, see Chapter 5.3.3 or
  - Delete all the devices below the SFG500 and create the network again

#### 5.2.5 Settings and Information tabs

Settings tab

The settings tab allows the IP address and time and date of Fieldgate SFG500 to be changed. Normally these parameters will be adjusted during the commissioning of Fieldgate SFG500 as described in Chapter 7.2.6 of Operating Instructions BA00070S/04/en, Fieldgate SFG500 Installation and Commissioning. The firmware update is described in Chapter 8.2.3 of the same manual.

Fieldgate	SFG500	Access Point	Endress+Hauser
Start Network Settin	ps Information		5. Jun 2015 11 25 16 🧮 🔠 Logi
Network Settings	Network Settin	ngs	
Date and Time	LAN1 Settings		
Firmware Update	IP Address LAN1	0.126.100.51	
	Netmask LAN1	255 255 255 0	
	Default Gateway	10 126 100 1	
	▼DNS Settings		
	Preferred DNS	0.126.16.21	
	Alternate DNS		
	Apply		
Fieldoate	SEG500	Access Point	Endress + Hauser
Trelagate	. 51 0 500		
Start Network Settin	ps Information		5. Jun 2015 11:27:42 🔤 🔐 Logi
Network Settings	Date and Time	Settings	
Tag and Location	Quick Setup		
Firmware Update	Use client PC settings	Apply	
	Advanced Setup		
	Date:	05/06/2015	
	Time:	11:27:29	
	Timezone:	(+01.00) Amsterdam, Berlin, Rome, Vienna, Prague, Brussels	2
	Apply manual settings:	Apply	
	Time synchron	ization Settings	
	Time synchronization	an/aff	
	Preferred NTP Server		
	Atternate NTP Server	historical .	
		Apply	
E: Ideate	CECEDO		- I II (711
Fieldgate	2 3FG200	Access Point	Endress+Hauser
Start Network Settin	gs Information		5. Jun 2015 11:41:51 🔜 🔠 Logi
Network Settings	Firmware Und	ate	
Date and Time			
Tag and Location	Version: 01 07 00-023	303	
Firmware Update	Update		
	Firmware File		

#### Information tab

The Information tab displays the information stored on the Electronic nameplate of Fieldgate SFG500 and where of Fieldgate Module SFM500.

Fieldgate	5FG500	Endress+Hauser
Start Network Setting	Information	27. Mar 2014 03:27:57 🚟 🖽 Logi
Device Identification	Device Identification	
	Fieldgate SEG500	
	Device Tag. SPG500_EB0001240A0 Order Code: 71116972 Serial Number: Ed001240A0 Software Version: 0.102.00 ENP Version: 2.02.00	
	Fieldgate Module SFM500	
	Operation Mode. Asset Monitor Order Code: SFM500.a.1 Serial Number: J30002240A.1 Software Versice: 01.0.10.0 ENP Versice: 02.0.2.0	

## 5.3 Additional Functions

#### 5.3.1 Communication log

The communication log provides a record of the transactions on the PROFIBUS network and can be used in diagnosing communication faults. It starts automatically on call up.

- 1. Right-click on the SFG500 node and select **Additional Functions => Communication** log
  - The SFG500 Communication log window opens:
  - Click the **Settings** tab to set what is to be logged

FC SFG500 (Communication log)	FL SFG500 (Communication log)
Stop Clear Enable log file	Stop Clear Enable log file
Logging Settings	Logging Settings
Log started	Filter settings
PBresponse (01.10) PBresponse (01.10)	☐ Information
	I✓ Warning
	₩ Error
	Comment
	₩ Status
Connected Database	Connected

2. The various buttons and parameters have the following significance:

Parameter group	Meaning
Logging tab	Shows the communication log. – Starts automatically on call up – After a log has been cleared, press the <b>Start</b> button to restart the logging
Settings tab	Sets the filters for the events to be logged Information: logs all information messages Warning: logs all warning messages Error: logs all error messages Comment: Logs all comments Status: logs all status messages
Start	Starts the log again after it has been cleared
Clear	Deletes the current log and stops logging
Save	Saves the current log – In the <b>Save as</b> page which opens, navigate to the desired folder – Enter a <b>file name</b> then press <b>Save</b>

#### 5.3.2 Set Device Address (PB Address)

Set Device Address allows the user to change the address of the selected PROFIBUS device, e.g. during commissioning of the network.

- 1. Right-click on the SFG500 node and select **Additional Functions => Set Device** Address
  - The PROFIBUS slave settings window opens:

Fieldgate SFG500		Endress+Hauser 🖽
Start Network Settin	as Information	19. Mar 2014 09:35:32 🗮 🖽 Logn
PROFIBUS Live List	PROFIBUS Slave Settings	
PROFIBUS Settings Slave Settings	Set Device Address Current Address New Address Apply Cancel	

- 2. Select the address of the device whose address must be changed from the **Current** Address drop-down menu
- 3. Select the address the device should be given in the **New Address** drop-down menu
- 4. Press **Apply** to write the change of address to the device

  - Pressing **Cancel** will discard all changes and leave the device with its old address
    A possible reason for a failure to change an address is that the device is locked
- 5. After an address change the device concerned will no longer be connected to its DTM:
  - Either change the DTM address to the new device address, see Chapter 5.3.3 or
     Delete all the devices below the SFG500 and create the network again

#### 5.3.3 Set DTM Address (DTM)

**Set DTM Addresses** allows the user to match the addressing in the DTM, i.e. the Tag in PROFIBUS networks, to the physical devices. The function is not relevant to FieldCare as this is done during a network scan but might be required for other FDT frames.

Right-click on the SFG500 node and select Additional Functions => Set DTM Address

 The SFG500 Set DTM address window opens:

Device Name:	SFG500	<b>1</b>
3 🛅 🤣		Update
Device Name	Device Tag	Address
iTemp / TMT 184 / PA / V1.01.1	TT1001	3
Deltapilot S / FEB 24 / PA / V2.0V2.2	LT1002	5
Prosonic M / FMU4x / PA / V4.xx	LT1003	6
Cerabar 5 / PMx x3x / PA / V2.0V2.2	PT1004	8
Levelflex M / FMP 4x / PA / V4.xx	LT1005	96

2. The various buttons and parameters have the following significance:

Parameter group	Meaning
Device Name	Shows the device and firmware version associated with the DTM
Device Tag	Shows the device tag of each device connected to the selected Fieldgate SFG500 – To change a device tag, enter the new designation then press <b>Update</b>
Address	<ul> <li>Shows the PROFIBUS address of each device connected to the selected Fieldgate SFG500</li> <li>To change an address, enter the new designation then press Update</li> <li>The same change must now be made in the Set Device Address dialog otherwise the connection to the device will be broken, see on-line help</li> </ul>
Update	Downloads the any changes in device tag or address to the DTM

## 5.3.4 Help

Help provides instructions on the functions and use of the SFG500 DTM

Right-click on the SFG500 node and select Additional Functions => Help

 The manual (BA00071S/04/EN) opens as a PDF

#### 5.3.5 About

About gives information about Fieldgate SFG500 and its Device DTM.

Right-click on the SFG500 node and select Additional Functions => About

 The SFG500 About window opens:



# 6 Trouble-Shooting

# 6.1 FieldCare

	Problem	Cause/Remedy
1	SFGNetwork DTM not available in DTM library	<ul> <li>FieldCare version does not support SFG500</li> <li>Install Fieldgate DTMs from CD-ROM supplied</li> <li>Update DTM catalogue</li> </ul>
3	SFGNetwork DTM cannot find Fieldgate SFG500	<ul> <li>No connection (general) <ul> <li>Check all Ethernet connections</li> <li>Check that Fieldgate SFG500 is switched on</li> <li>Check that the IP address domain of the computer is the same as that for Fieldgate SFG500 (a simple test is to call the web server or ping)</li> <li>Check that there is no firewall blocking communication</li> <li>Check that the Microsoft SQL Server is running</li> </ul> </li> <li>No connection after network scan (additional remedies) <ul> <li>Check that PC and SFG500 are in the same logical network (ping)</li> <li>If not, check that the following ports are enabled on the router (see also Appendix B) UDP 60020: from SFG500 network to PC TCP 60010: in both directions</li> </ul> </li> <li>No connection after manual connect (additional remedies) <ul> <li>Check any error messages in FieldCare</li> <li>Check the configuration of the CommDTM is entered IP address, Tag, Serial number correct?</li> </ul> </li> </ul>
4	SFG500 DTM cannot find PROFIBUS device(s)	<ul> <li>No connection         <ul> <li>Check all PROFIBUS connections</li> <li>Check that device is switched on</li> <li>Check that the device has a unique PROFIBUS address</li> <li>Check that the bus is properly terminated</li> </ul> </li> </ul>
5	Device(s) connected to link cannot be seen	<ul> <li>No connection         <ul> <li>Check that the link CommDTM is in place and property configured</li> <li>Check all PROFIBUS connections</li> <li>Check that device is switched on</li> <li>Check that the device has a unique PROFIBUS address</li> <li>Check that the bus is properly terminated</li> </ul> </li> </ul>
6	Device(s) connected to a Remote I/O cannot be seen	<ul> <li>No connection         <ul> <li>Check that the Remote I/O CommDTM is in place and properly configured with licence</li> <li>Check all HART connections</li> <li>Check that device is switched on</li> </ul> </li> </ul>

NOTICE

# Appendix A Changing a computer's IP properties

#### NOTE!

- You may need administration rights to change the IP settings of your computer. If this is the case, contact your system administrator
- The procedures described in this chapter are for Windows XP. For other Windows systems consult your system administrator.

Most computers which are used in a company network will already be set up to accept an IP address from a DHCP server. If you computer is used in a control system, however, it is possible that it has a fixed address. In this case, in order to connect to Fieldgate SFG500's LAN2 port, proceed as follows:

#### **Procedure for Windows XP** 1. Right-click **Start =>Settings =>Control Panel =>Network Connections**

S Network Connections				
Eile Edit View Favorites Tools Adva	nced Help			-
🕝 Back + 🕥 + 🏂 🔎 Search 👔	👌 Folders 🛛 🔝 🏂 🗙	<b>19</b>		
Address 🔕 Network Connections				> Go
Name	Туре	Status	Device Name	Phone
LAN or High-Speed Internet				
🕹 Local Area Connection	LAN or High-Speed Inter	. Connected, Firewalled	Broadcom NetXtreme 57	
Wizard				
New Connection Wizard	Wizard			
•				

2. Right-click Local Area Connection => Properties

Bloadcom Net	(treme 57xx Gigabit C	Configure
iis connection uses	the following items:	
🗹 📇 QoS Packet	Scheduler	<u></u>
Internet Prote	col (TCP/IP)	
4		Č
linotali (	Uninctell	Proportion
I <u>TI</u> SKOL	<u>Dimision</u>	
Jescription Transmission Contr	ol Protocol/Internet Pro	tocol. The default
wide area network	protocol that provides o	ommunication
deross diverse liner	Connected networks.	
Show icon in notif	cation area when conn	ected

- 3. Using the left mouse button, double-click **Internet Protocol (TCP/IP)** or click once, then click **Properties**.
- 4. Note the addresses that have been assigned to your computer you will need them later when you reset your computer after commissioning the Fieldgate SFG500, see below

5. Select the option Obtain and IP address automatically

u can get IP settings assigned is capability. Otherwise, you nee e appropriate IP settings.	automatically if your network supports ed to ask your network administrator for
Obtain an IP address autom	atically
Use the following IP addres:	s:
IP address;	
Sybnet mask:	
Default gateway:	
<ul> <li>Obtain DNS server address</li> </ul>	automatically
Use the following DNS service	er addresses:
Preferred DNS server	
Alternate DNS server:	

6. Now click **OK** to confirm your selection and close the dialog – Press **OK** to close the Local Area Connection window

After the Fieldgate SFG500 has been set up, you can reset your computer to its old address as follows

- 7. Repeat Steps 1 to 3 of the above procedure
- 8. In the Internet Protocol (TCP/IP) Properties dialog select the option Use the following IP address
  - Re-enter the settings that you noted at Step 4
- 9. Now click **OK** to confirm your selection and close the dialog Press **OK** to close the Local Area Connection window

# Resetting the fixed IP address

# Appendix B Windows Firewall

If firewalls are in use on the computers on which the servers and clients reside, they must be programmed to allow mutual access. As firewall configuration is often a matter of company IT security policy, your system administrator should be consulted before proceeding. In addition, administration rights are required to perform this task.

- 1. Press Start => Control Panel => Windows Firewall
- 2. Press the **Exceptions** tab to add the exceptions on two main levels:
  - Add program..: specify which applications are able to respond to unsolicited requests
  - Add Port..: specify that the firewall should allow TCP traffic at ports used by the servers, see Table 4-1 below
- 3. In the General tab, select the On (recommended) radio button to switch on the firewall

**Communication ports** The ports available for Fieldgate SFG500 are listed in the table below:

Port number	ID	Meaning
TCP 60010	TCP_PCPS2_SFG500_PORT	
UDP 60015	UDP_IDENTIFY_PORT	
UDP 60020	UDP_ANNUNC_PORT	

For your notes

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