

Release Note

PROFIBUS Scope

Version 4.2

1. Product Version Components

Component	Files	Version
PROFIBUS Scope	ProfibusScope.exe	4.2.0.0
	Parser.dll	2.1.4.0
	THScopeV1.dll	4.1.4.9
	Profibusscope.ini	1.3
	dposzill.ini	n.a.
	dposzill.ocx	4.0.2.2
	scope.mdb	n.a
	th_report.mdb	n.a
Exporter Tool	Exporter.exe	1.1.6.3
Driver Switch-Over	instdrv.exe	1.5.0.0
	activate_siemens_driver.bat	
	activate_th_driver.bat	
	CP5xxx.sys	3.2.0.9

2. Product Version Manuals

Title	Version
PROFIBUS Scope 4.2 Installation Guide German/English (PDF)	1.3
PROFIBUS Scope 4.2 Benutzerhandbuch German (PDF)	1.2
PROFIBUS Scope 4.2 User Manual English (PDF)	1.2

3. System Requirements

3.1. Operating Systems

Supported and tested operating systems are:

- Windows 2000 SP4 (German and English)
- Windows XP SP3 (German and English)
- Windows Server 2003 SP2 (English)

Windows Vista is not supported. The DAO 3.5 Windows component needs to be installed on all operating systems (included in scope of delivery).

3.2. Hardware Requirements

Your PC should meet the following minimum requirements:

CPU : Intel Pentium 4; 2 GHz

RAM : 512 MB

Free hard disk space : 50 MB

USB port : USB 1.1 (or higher) for the license dongle

Network card : 100 MBit/s (only for application with the xEPI 2)

Communication through xEPI 2 requires high-capacity Ethernet infrastructure (network card, switch, etc.) in order to process the data in real time.

3.3. PROFIBUS Communication Processor

Name	Hardware	Firmware	Baud rate
xEPI 2	Rev. 2.0	From Rel. 5.2.2.6	1.5 MBit/s
SIEMENS CP5611 (PCI and Siemens PG)	Rev. A1 and A2	-	12 MBit/s
SIEMENS CP5512 (CardBus)	Rev. 2	-	12 MBit/s

4. Scope of Delivery

The PROFIBUS Scope V. 4.2 is supplied on a CD-ROM and with respective license dongle.

Two product types are available:

- a) Full version: CD-ROM and license dongle V. 4.2
- b) Upgrade version: CD-ROM and upgrade dongle, for upgrade of your existing license dongle V. 3.x to V. 4.2

The drivers for the communication processors and the license dongle as well as a Help document are locally available on your system after successful installation.

Without license dongle, you can install the PROFIBUS Scope V. 4.2 and work in offline mode.

Not all functionalities of the PROFIBUS Scope V. 4.2 are available in offline mode. Please consult your Installation Guide or User Manual for further information.

5. Compatibility

The PROFIBUS Scope V. 4.2 has been enhanced in a number of details and enables diagnosis of PROFIBUS networks via Ethernet. You will need a USB license dongle V. 4.2 for unlimited software use.

You cannot use the PROFIBUS Scope V. 4.2 with the V. 3.x license dongle.

xEPI 2

The PROFIBUS Scope V. 4.2 requires firmware version Rel. 5.2.2.6 or higher.

For already existing xEPI 2 units, you can download the new firmware at our website www.t-h.de.

CP5512 / CP5611 and Siemens Field PG

Operation of the PROFIBUS Scope 4.2 with Siemens CP cards remains unchanged. Cards supported by default include the CP5611 A2 hardware.

6. Installation Guide

To use the PROFIBUS Scope V. 4.2, you first need to install the software on your system. To do so, start the setup.exe, an installation wizard will guide you through the installation process. If you install the PROFIBUS Scope on your system for the first time, please ensure that the DAO3.5 Windows component is installed. Verify if the following file is available:

C:\Programs\Shared Files\Microsoft Shared\DAO\dao350.dll.

If the file is not available, first install the DAO3.5 Windows component. It is included in the scope of delivery (CD-ROM) and also available for download from our web site www.t-h.de.

7. New and Enhanced Functions

General:

- The PROFIBUS Scope can be used at the same time with the xEPI 2 PROFIBUS Diagnosis.
- If the xEPI 2 is used and the PROFIBUS Diagnosis is running, the settings of the baud rate will be taken over.

8. Corrected Failures

The following failures have been corrected:

- Operation mode Diagnosis – print function
 - o The first page of the “network structure” protocol was empty.
 - o In protocol “Plant” “Configuration Run Done” was displayed with “No”, although it was done.

9. Known Problems

- If the folder set for GSD files contains several files with identical device ID (e.g. upon use of language-dependent files GSD, GSE, GSF etc.), you will receive a respective note at PROFIBUS Scope start. The program always uses the first identified file.
- To use the signal mode it is necessary to stop the xEPI 2 PROFIBUS Diagnosis measurement.
- If the xEPI 2 is used and the PROFIBUS Diagnosis is running, the filter Token and Request FDL-Status can not be used in the Telegram and Logger mode and will be grayed out.

10. History

Changes in Release 4.1.0.0 (09-Mar-2009)

New and enhanced functions

General

- New example projects are available.
- Support WibuKey 5.20b

xEPI 2 Communication Processor

- The PROFIBUS Scope can be used with a xEPI (version 4.0) as well as with a xEPI 2 (version 5.0.0.4 or higher). With the xEPI 2 additional comprehensive web-based PROFIBUS diagnosis functions are available.
- The xEPI 2 units are automatically identified in your hardware settings (network scan) and displayed with host name, IP address and operation mode. This facilitates systematic and targeted selection of PROFIBUS strands.
- Also devices in the PROFIBUS diagnosis operation mode are displayed, but they can not be selected.
- All PROFIBUS Scope operating modes are supported by the xEPI 2 up to a baud rate of 1.5 MBit/s.

Help

- The <F1> help is available in German and English as a PDF document. You can print it partially or completely.
- The menu bar entry "How to Use Help" was removed.

Diagnosis Operating Mode

- You can change the display of the diagnosis messages in the diagnosis list at settings to „Show new diagnosis on top“.
- If the PROFIBUS Scope is in online mode, the word Online is flashing additional.
- Display how many GSD files are loaded.

Corrected failures

General

- Error correction of the graphical user interface (Formatting, spelling errors).
- Hardware Settings: After automatic hardware detection it is possible to set the baud rate manually and also the manual setting of the IP address remains in the display.
- PROFIBUS Scope is also operable after switching off the xEPI/xEPI 2 unit.
- User has the right to change the Profibusscope.ini file.

Diagnosis Operating Mode

General

- It is possible to save the plant name.
- Net Ident could be abort without switching off the master. Improvement of guiding the user.
- Long time measurement is stable.
- Sorting of the stations in the device list shows the highest value on top.
- To stop the measurement is possible even if there is no PROFIBUS network connected.
- Create new projects after saving another project before works correctly.
- Display of the wrong language in slave diagnosis, parameter texts and values has been corrected.
- Language switching has no effect on enabling or disabling buttons.

GSD

- No more system crash of the PROFIBUS Scope if GSD files are too large or if special characters are contained in.

Diagnosis messages

- Corrected display of the SPI3 modbus diagnosis.
- Corrected display of the Siemens ET 200M, ET 200iSP, Simocode and Pepperl+Fuchs SK3 parameters.
- If there are two diagnoses at the same time, both are displayed in plaintext.
- All channel related diagnoses are displayed.

- New diagnosis messages are displayed immediately in the diagnosis list.
- Incorrect assignment of error messages to the slaves has been corrected.

Signals Operating Mode

- Blue screen when using the CP5512 is eliminated from a CP card driver version 3.2.0.5
- All modified values in the network are transferred correctly.

Telegrams Operating Mode

- Errors while opening and exporting telegram records were corrected.
- Error in DPV2 interpretation was corrected.
- Numbers of telegrams remain the same on filter settings.
- The data of FDL telegrams are displayed correctly in DPV1 interpretation.
- DPV2 time values in ClockValue telegram are displayed correctly.
- Live List: Sporadic display of station 126 and display of a second non existing master with address 0 were corrected.
- Buffer size is not overwritten by wrong values.
- No system crash by scrolling in the telegram display.
- After stop measurement a part of telegrams were displayed twice. This error was corrected.
- Start and Stop Trigger are displayed correctly.
- Telegram numbers are displayed at error telegrams.
- Master-Master-Communication will be interpreted completely.
- Improvement of the stability in networks with many error telegrams.

Logger Operating Mode

- Logger can be started without any problems.
- Changing the baud rate is displayed correctly everywhere.
- Improvement of the stability in networks with many error telegrams.

Changes in Release 4.0.1.1 (10.08.2007)

xEPI Communication Processor

- Besides numerous new features, the new release enables stationary or permanent measurement access via Ethernet. With the ETHERNET-PROFIBUS-INTERFACE | xEPI, measurements are no longer limited to local measuring on site. The entire number of PROFIBUS strands of the plant can be monitored and measured centrally and plant-wide from your control station.
- All PROFIBUS Scope operating modes are supported by the xEPI up to a baud rate of 1.5 MBit/s.

- The xEPI units are automatically identified in your hardware settings (network scan) and displayed with host name and IP address. This facilitates systematic and targeted selection of PROFIBUS strands.

Diagnosis Operating Mode

- Device parameters are read from the GSD file and displayed in plaintext. As an additional option, they are also available as hex parameters in a 10-column list.
- Display in the status window has been enhanced and includes current status and error history.
- The device list has been extended by the columns "Repeats" and "Error telegrams". The new "TOP 10 - one click" technology for the first time allows quick and easy mouse-click identification of critical network stations with the highest number of error and repeat telegrams.
- The network tree uses manufacturer-specific icons with their respective status for device display where graphic files are available and can be assigned through GSD file.
- Measurement start and stop is recorded with timestamp in the list of diagnosis messages. This facilitates their chronological evaluation. Local PC time is used as timestamp for all diagnosis messages.

Telegrams Operating Mode

- The Live List is displayed as a matrix of the 127 possible PROFIBUS stations. This provides a quick and simple overview.
- For quick and efficient troubleshooting, the Trigger, Search and Filter functions are now also available for repeat and error telegrams.
- Telegram display can be modified in a way that new telegrams are shown on top of the list.

11. Frequently Asked Questions

Subsequent an extraction of the FAQs are displayed. The complete list you can find on our web site www.t-h.de.

Question: Where do I connect the PROFIBUS Scope in the PROFIBUS network?

Answer: The PROFIBUS Scope can be connected in each segment, at the bus start or the bus end, via standard, commercially available plugs (direct access). For indirect access via programming connectors, an active cable can be used.

For protocol recordings for PROFIBUS PA in the PROFIBUS DP segment.

Question: Why do I also have to install DAO before the PROFIBUS Scope installation?

Answer: DAO3.5 is required to access the database interface in the »Signals« operating mode. The necessary drivers are installed with this installation.

Question: How can I display diagnosis messages as plaintext messages?

Answer: In the »Diagnosis« operating mode, PROFIBUS standard diagnoses are automatically displayed as plaintext messages. Messages on manufacturer-specific diagnoses are transmitted as extended diagnosis in the diagnosis telegram. To display these messages, the GSD file has to be installed in the respective directory

In the »Telegrams« operating mode, diagnosis telegrams are interpreted in detailed overview (standard diagnosis), thus displaying the meaning of every single bit.

Question: Can I make the recorded measurements available for other programs as well?

Answer: Yes, the measurements saved in the »Telegrams« operating mode can be exported into ASCII format. They can be processed, for instance, with MS Excel.

Question: When starting the measurement in Diagnosis Mode, the modules of some slaves are deleted even though they had already existed. Why?

Answer: At the start of the measurement, it is verified that the slaves still have the same I/O sizes as upon module configuration identification. If this is not the case, it is assumed that the slave has been reconfigured and the initially identified module configuration no longer matches the current one. Altered I/O sizes can also result from the DP master being in "Stop" status while "FailSafe" mode was parameterized for the slave.

12. Release Authorization

Name	Company	Function	Date	Signature
Manuela Sievers	Trebing + Himstedt	Author		
Andreas Mikolaschek	Trebing + Himstedt	Verified		
Stefan Trebing	Trebing + Himstedt	Released		

Note: Signatures only on the original