

# SIEMENS

## DIGSI 4

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**DIGSI 4.70**

**7XS54**

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### Product Information

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Subject to Changes

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Siemens Aktiengesellschaft

# SIEMENS

This Product Information contains **important information about DIGSI 4.70**. It is part of the product supplied, and the information in it should be considered more up-to-date if uncertainties arise.

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We have checked the contents of this document for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this document are reviewed regularly and any necessary corrections are included in subsequent editions. Suggestions for improvement are welcome.

Technical data are subject to change.

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## 1 Scope of supply

This CD-ROM contains DIGSI 4, the PC program for configuring, parameterizing, starting and operating all digital SIPROTEC protection, combination and bay devices, in its current version 4.70. With a PC or a notebook you can parameterize the devices via the interfaces and export and visualize the fault data. If ordered, additional optional packages are also available to you:

- With the SIGRA evaluation program you can visualize and exactly evaluate fault recordings.
- The graphic display on the larger displays can be designed and edited with the Display Editor as with a graphics program; templates are provided on the CD-ROM for further processing.
- You configure additional functions of the devices graphically with the CFC Editor.
- You can conveniently set remote communication with DIGSI Remote. An electronic telephone book is available, for example for communication via a modem line.
- The IEC61850 System Configurator (new since DIGSI 4.60) allows you to configure and parameterize IEC61850 stations. This tool allows you to manage subnets, network communicators and their IP addresses and to connect the information items of different communicators.

All components on this CD-ROM are in German, English, Spanish, Italian, French, Russian and Chinese. To install them you must enter the serial number provided on the product card; then you can initialize the ordered components. Please keep the product card with the serial number in a safe place.

## 2 Minimum Requirements

- Pentium with 800 MHz processor (1.6 GHz recommended)
- 800 MB up to 1.5 GB of free hard disk space (depending on the installation)
- 256 MB RAM (512 MB recommended)
- CD/DVD ROM drive
- Serial interface
- MS Windows XP Professional Edition (with Service Pack 1 and 2), MS Windows 2000 (with Service Pack 4).  
Depending on the configuration, full administrator rights are required for installation.

### 3 Compatibility

If the automation software STEP7 or SICAM plusTOOLS is used on the same computer, then the following must apply to the installed versions for compatibility reasons:

Currently:

-----  
DIGSI 4.70  
SICAM PAS 5.00 / 5.10  
SICAM SAS 5.20  
STEP7 5.30 (with SP2, incl. CFC 6.1 + Hotfix 1, SIMATIC NET V6.3)

Previously:

-----  
DIGSI 4.60  
SICAM PAS 5.00 / 5.10  
SICAM SAS 5.01 / 5.10  
STEP7 5.20 (with SP1 + Hotfix 3, incl. CFC 6.0 + Hotfix 4, SIMATIC NET V6.1)

DIGSI 4.50  
SICAM 5.00  
STEP7 5.20 (with SP1, incl. CFC 6.0)

DIGSI 4.40  
SICAM 4.0x  
STEP7 5.10 (with SP3, incl. CFC 5.2)

DIGSI 4.40  
SICAM 3.10  
STEP7 5.00 (incl. CFC 5.10)

DIGSI 4.00/4.10  
SICAM 2.00/2.10  
STEP7 4.20 (incl. CFC 4.20)

**Important**

1. Devices of the version V4.5 can only be operated with DIGSI V4.50 or higher, devices of the version V4.6 only with DIGSI V4.60 or higher.
2. DIGSI 4 is downwards compatible, i.e. in DIGSI 4.70, you can still process device files that were processed with DIGSI 4.60 or an older version of DIGSI 4. However, device files processed with DIGSI version 4.70 cannot be processed with an older DIGSI version.
3. A new version of plusTOOLS compatible with DIGSI V4.70 is planned for autumn 2005.
4. At present no device drivers with Russian texts are available. If required, please contact your Siemens partner.
5. At present parameter set upgrade for devices with IEC61850 interface is not (yet) possible.
6. At present plug & play for devices with IEC61850 interface is not (yet) possible.
7. DIGSI projects generated in Chinese or Russian language cannot be opened with other DIGSI language settings. In addition to this fact, it is not possible to open projects generated in German language with DIGSI language set to "Chinese" or "Russian". Exception: English with additionally installed MS Windows language packs for these two languages.
8. It is not possible to operate DIGSI correctly in Russian or Chinese if the language packs are not available in your MS Windows operating system. Only the English MS Windows operating system allows to install these language packs.

## 4 This is new compared with Version 4.60

### 1. Compatibility with STEP7 V5.3:

Up to now, DIGSI could not be installed on a computer where STEP7 V5.3 was running. DIGSI 4.70, however, is compatible with this version.

### 2. Internationalisation of DIGSI 4.70 for the languages Russian and Chinese:

DIGSI can be operated in the languages German, English, French, Spanish and Italian, and now also in Russian and Chinese.

This language, the DIGSI operating language, can be changed any time in the menu "Options > Customize > Language" in the DIGSI 4 Manager.

However, this setting does not affect the language of the PC-specific texts on the computer. This language is changed with the "Object Properties" of the respective device.

3. The comparison of parameter sets (off-/offline and off-/online) now also includes the device display pictures.

4. Some faults from the previous version have been corrected, for example:

- ❑ Fault 22983: GI obligation of messages in protocol IEC60870-5-103
  - The updating of a parameter set from a version inferior to V4.60 to version V4.60 or higher all the sets of information are set to be subject to GI, even those which previously were not. Moreover, transient information is transmitted after the updating with INCOMING and OUTGOING.
  - A message that is defined as a single point indication in the device and is reported to T103 as transient information, and is therefore not subject to GI, will be treated like a single point indication after having been allocated to the system interface, and is then wrongly subject to GI.
- ❑ Fault 23659: No IEC61850-GOOSE messages received  
In a SIPROTEC 4 device with IEC61850 communication (communicator in an IEC61850 station) an information will be added in the matrix and allocated to the system interface. Now other communicators do not receive GOOSE telegrams from this device any more.
- ❑ Fault 23519: The wrong PROFIBUS DP address is displayed  
A PROFIBUS DP address assigned by DIGSI 4.40, might be displayed wrongly in DIGSI 4.60.
- ❑ Fault 23519: Fault indications cannot be read out from low-end devices.  
Although the "STOER" folder of a device type 7SJ600 exists and is not read-only, fault indications cannot be read out with DIGSI.
- ❑ Fault 21958: IEC 61850 fault during import of an SCD file  
After the import of a SCD file in SICAM PAS some data are entered with the wrong type.
- ❑ Fault 21843: Aborting the DIGSI transmission  
When reading out the process data from a device of the 7SJ600 V3.2 type, the data transmission is aborted with error indications.
- ❑ Fault 23657: IEC61850 object prefix too long  
The prefix of a logical node of an IEC61850 device can wrongly have more than 7 characters.



- Fault 23140: Imprecise error indication during device updating in IEC61850 system configuration  
If during allocation of an IEC61850 device, two datasets with the same short text are used, which are allocated on the IEC61850 interface, the system configurator emits a meaningless error indication.

## 5 Contents and structure of the product

### CD "Program":

- DIGSI 4 (incl. optional components) in German, English, Spanish, French, Russian and Chinese.
- Readme.txt file with important additional information in English (German).
- WinZIP, program for archiving of projects.  
Note: This Version is distributed as shareware and has to be licensed by the customer.
- Templates in the \*.DOC format for labelling strips of the LEDs and functions keys on the device.
- Program for retrieving archives created with DIGSI 3.
- EXCEL sheet (German, English) to transfer data generated for analog protection device to new digital SIPROTEC devices.
- Program to install "Web Monitor". This tool allows you to access SIPROTEC 4 devices via MS Internet Explorer (i.e. without DIGSI), incl. online help and SIGRA plugin.
- DIGSI manuals in \*.PDF format (mostly in German, English).
- Acrobat Reader for reading the \*.PDF files.

### CD "Device Drivers":

- All released device drivers.

### DVD "PTD Support DVD":

- A copy of the complete Download Area ([www.siprotec.de](http://www.siprotec.de)) for example with device manuals in \*.PDF format (in various languages, application examples, tips and tricks).

This product includes software developed by the Apache Software Foundation (<<http://www.apache.org/>>).

## 6 Installation

Depending on the configuration of your operating system you require full administrator rights for installation.

### **Installation**

- If an older version of DIGSI 4 is already installed, it must first be de-installed using the de-installation program of MS Windows (see below).

#### **Important:**

**Following de-installation the computer must always be rebooted.**

- If you want to use STEP7 and/or SICAM on the target computer, you have to install these software packages before installing DIGSI.
- Insert the CD-ROM "Program" into the CD-ROM drive of the operating PC.

Normally, the DIGSI set-up menu is now automatically opened.

If this is not the case:

- Click on the Windows Start menu again and select the "Run...." item.
- Enter the following text in the box.  
x:\Setup.exe  
(x stands for the drive character of the CD-ROM drive).
- Click **OK**.
- Click the button "DIGSI 4.7".
- Follow the on-screen instructions of the set-up program:  
In a selection menu you can now select whether you want to carry out a full installation (initial installation) or only a partial installation (option packages, later installation of device drivers). You always require the serial number indicated on the product card provided.

To install manuals or drivers, you need the other CDs/DVDs enclosed.

#### **Important:**

**Avoid special characters in the path like blanks, hyphens and others.**

## 7 De-installation

With the de-installation program of MS Windows you remove DIGSI 4 with all optional components from your PC. During the de-installation you remove all data installed by the installation program of DIGSI 4. The user-specific data like projects remain located on the PC.

1. Select "Settings > Control Panel" in the Windows Start menu and then "Software" (in Windows 2000 "Add/Remove").
2. In the list, select "DIGSI Devices".
3. Click "Remove" to start the de-installation. Follow the installation instructions.
4. Repeat steps 2 and 3 for the item "DIGSI 4".

## 8 Additional orders

If you have not ordered components of DIGSI 4 that you now do want to install, order these with specification of the serial number. Then you will receive a new serial number with which these components are made available.

## 9 Additional information

Please observe that you are not permitted to install the DIGSI copy from this CD-ROM on more than 10 computers.

### **Internet:**

To remain up-to-date in the future, please make use of the offer on our download platform on the Internet from.

<http://www.siprotec.de> (German)  
<http://www.siprotec.com> (English)

### **DIGSI courses:**

If you are interested in taking a DIGSI course, please contact your sales partner or our course office by calling

+49 - 911 - 433 7005.

### **DIGSI support:**

If you have problems with DIGSI, contact our Customer Care Centre.

Phone: +49 - 180 - 524 7000  
Fax: +49 - 180 - 524 2471  
Email: [ptd.support@siemens.com](mailto:ptd.support@siemens.com)

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We are sure that you will continue to work successfully with DIGSI.

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## 10 Known Problems

- Changing the PC device language: No Effect on the CFC Border

*Situation:*

You can change the PC device language of the DIGSI 4 Manager any time. English and German are offered.

*Caution:*

If the PC device language is changed, the standard device texts in the edge bars of a CFC chart remain in the language originally set.

You can only obtain these texts in the desired language when you delete and then restore every connection to the edge bar.

- Operation by several DIGSI users at the same time (No. 911)

*Situation:*

It is possible to operate a device via the front or the rear interface. Even for bus users (PROFIBUS FMS, ETHERNET), concurrent access by several users is possible.

*Caution:*

A prioritisation of the interfaces is currently missing so that access via the one interface can influence the simultaneous communication via the other (changes in the baud rate, transfer of parameters).

- Inserting a Device: "Server is busy"

*Situation:*

Devices are managed in the DIGSI 4 Manager. They can be selected from the device catalogue and inserted in a project.

*Caution:*

When inserting a device with a large range of functions (e.g. 7SJ63...), the message "Server is at full capacity" may appear. This message is meaningless: The device will still be inserted correctly.

- Hierarchical CFC Charts Cannot Be Used

*Situation:*

With the new version, the ability to save modules and their circuitry in a new macro module (hierarchical charts) is offered in the CFC option package.

*Caution:*

At present, such blocks cannot be used in different charts.

- ❑ Supposedly Missing Projects (No. 13232)

*Situation:*

You have installed and started the new version, and now you want to open a project edited previously.

*Caution:*

Projects which have just been created, are initially not visible. Select "Open" and then the button "Search...". In the next dialogue you mark the desired projects and confirm them with "OK".

- ❑ DIGSI 4 Manager does not react

*Situation:*

An existing modem connection is interrupted (e.g. by disconnecting the cable from the PC modem).

*Caution:*

The DIGSI 4 Manager then no longer reacts, as the modem connection is not re-established. Close the so-called ComTask (icon in system area of the Windows taskbar).

- ❑ No Comments During Export/Import (No. SE.144.3944.1)

*Situation:*

A device is exported and then re-imported.

*Caution:*

All comments get lost during this procedure.

- ❑ No PROFIBUS FMS connections

*Situation:*

In the COM PROFIBUS configuration, a connection for SICAM RECPRO is configured.

*Caution:*

The DIGSI-PROFIBUS-FMS connections then no longer work.

In the COM-PROFIBUS configuration for the CP, VFD 2 must be used for RECPRO. For connections from SIPROTEC devices, the VFD 1 is to be used when available (otherwise 3).

- ❑ Unexpected result for Offline/Offline comparison

*Situation:*

The Offline/Offline comparison will find up to 1,000 differences for devices that were only copied from the original device or created as variants.

*Caution:*

The copy/variant must be opened once with DIGSI. Not until then does the comparison reliably provide the correct result.

- ❑ Comparison of devices with user-defined information

*Situation:*

Although it appears to the user that configurations are identical, differences may be displayed when configuring user-defined information during the comparison.

*Caution:*

The reason for this is that this information has been inserted in the matrix in a different order.

- ❑ Icons of the busbar protection system editor can be copied

*Situation:*

The user-defined icon libraries of the system configuration cannot be exported within the editor from one computer to another computer.

*Caution:*

Copy the user-defined libraries directly in the file system using the MS Explorer. User-defined dynamic icons are located in the directory

..\Digs4\SSLib\SSData\dyndin

User-defined static icons are located in the directory

..\Digs4\SSLib\SSData\stauser.

- ❑ Object properties for Offline/Offline comparison

*Situation:*

With Offline/Offline comparison object properties of the matrix information are not compared.

- ❑ Crash of the V2-device operation (DOSDIGSI) (No. 52915)

*Situation:*

The V2-device operation (DOSDIGSI) crashes in MS Windows XP. This is due to an incorrect setting of the compatibility mode.

*Caution:*

Open Explorer and select the file "dosdigs.exe" in the path x:\...\Digs4\Digs2 (x stands for the drive on which DIGSI is installed). Open the properties and select "Windows 95" in the tab "compatibility". Settings on the tab "Options" may also have to be adapted.

- ❑ No network printer for V2 operation (No. 53005)

*Situation:*

During V2 operation (DOS-DIGSI) it is not possible to route to network printers.

*Caution:*

Printers available in a network must be made accessible by means of the DOS command "NET USE LPT1 = <driver incl. path>".

- Incomprehensible error messages for modem communication (No. 438)

*Situation:*

Working with a modem communication, incomprehensible error messages (and numbers) may occur. These messages are generated by a MS Windows component (TAPI) used in DIGSI.

The following error codes are known:

0x80000005

The call could not be executed due to a busy line or a missing dialling tone, for example.

0x80000048

Local modem not found due to a busy interface, for example.

0x8000004B

If this error occurs while initializing a modem, you have to send a reset command (AT&F or ATZ, depending on the modem type) to the modem. This error may also occur if the interface is busy while attempting to initialize a modem.

0x80000022

An invalid character was entered in the phone book: For example, a letter or an invalid country code.

- No measured value update for PROFIBUS FMS (No. 391, 10566, 10614, 13052))

*Situation:*

If windows for measured values are open for a longer time (1 hour) the values may not be updated. DIGSI device editor may crash.

This error applies for PROFIBUS FMS connections only.

*Caution:*

If DIGSI crashes, you have to close the task in the task line.

- Working with DIGSI requires administrator rights (No. 666)

*Situation:*

For a user without administrator rights (MS Windows 2000 and MS Windows XP), it is possible to start DIGSI; working with DIGSI causes error messages.

*Caution:*

DIGSI PC users must have administrator rights.

- Upgrading a SIPROTEC device to IEC61850 (No. 1877)

*Situation:*

Devices with firmware version 4.50 may be upgraded for IEC61850 communication by installing a communication module. This requires a firmware and a parameter set upgrade.

*Caution:*

When the firmware is upgraded and the communication module is installed, proceed as follows:

- Upgrade the parameter set (use the function provided in DIGSI manager).
- Register the communication module on the property pages of the device (tab "Communication modules").

Now, you can use the device as IEC61850 communicator.

- "Display after fault" not in the Upgrade mechanism (No. 2296)

*Situation:*

While upgrading a parameter set from version V4.5 to V4.6 the settings for "Display after fault" are lost.

*Caution:*

You have to configure the indications parameterized before the upgrade again to be used for "Display after fault".

- Error during import of variables in WinCC (No. SE.144.13535.1)

*Situation:*

Variables that only differ in special characters or capital/small letters, cannot be read into WinCC.

*Caution:*

Please adapt such texts in SICAM PAS or SICAM SAS.



- DOSDIGSI: Connection problems and error messages (No. SE.144.53406.1)

*Situation:*

Frequent problems and incomprehensible error messages occur when you try to establish a connection between DIGSI and a device of version 2.

*Caution:*

Set the message gap in DOSDIGSI (not in 'Properties') to a higher value (50-5000, e.g. 2000).

- Calling SIGRA in the DIGSI installation language (No. 24326)

*Situation:*

When a fault-record file (\*.cfg) is opened directly from MS Windows Explorer (e.g. with a double click), SIGRA starts in the DIGSI installation language.

*Caution:*

Complete the link "SIGRA 4" in the start menu with the language-specific call parameters. Open the program group "DIGSI 4.7" in the start menu and click on "SIGRA 4" with the right mouse button. Select "Properties..." in the pop-up menu. Put a blank and the respective call parameter at the end of the target path:

/a German  
/b English  
/c French  
/d Spanish  
/e Italian  
/f Russian  
/k Chinese

Click "OK" to confirm your setting and close the dialog box.

- Help windows without content

*Situation:*

Content in the help windows is missing. This problem occurs dependent on the type of operating system and the installation context. That can be traced back to the fact, that Microsoft released a security update.

*Caution:*

For solving this problem you only must create an additional key in the MS Windows registry. On our FAQ page (see "Additional information") you will find a detailed support with the FAQ number "PA-2059-1A-7620".

