

# SIEMENS

## DIGSI 4

E50417-X1174-C107-B6

Last Update 12/05

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**DIGSI 4.71**

**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 4.71**. 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 4.71. 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 can 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.
- What is new since DIGSI 4.60 is the IEC61850 System Configurator enabling you to configure and parameterize IEC61850 stations. This tool allows you to manage sub-nets, 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. As an alternative, you can enter "Trial" to use DIGSI together with all option packages for up to 30 days for free.

## 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. DIGSI PC users must have administrator rights.

### 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:

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DIGSI 4.71  
SICAM PAS 5.11  
SICAM SAS, RTU, eRTU V5.20, V5.30  
STEP7 5.30 (with SP2, incl. CFC 6.1 + Hotfix 1, SIMATIC NET V6.3)

Previously:

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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)

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 backwards compatible, i.e. in DIGSI 4.71, 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 4.71 cannot be processed with an older DIGSI version.
3. At present no device drivers with Russian texts are available. If required, please contact your Siemens partner.
4. 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.
5. 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.
6. The new device 7UT613 V4.60 can only be operated with DIGSI 4.71
7. DIGSI runs under the following regional language versions of MS Windows: German, English, Spanish, French, Italian, Russian, and Chinese and the MUI versions available for these languages.

## 4 This is new compared with Version 4.70

1. Parameter set upgrade is now possible for devices with IEC61850 interface:  
It is possible to upgrade older parameter sets of IEC61850 devices to newer versions.

2. "Plug & Play" is now possible for devices with IEC61850 interface:  
Devices with an IEC61850 interface may be read on a PC even without parameter set.  
The Parameter set read from the device may be saved, modified and transferred to the device again.

**Caution:** Only changes are allowed, which do not refer to the system interface.

For example, changes of the functional scope, the system interface and the time synchronization are not possible.

3. Connection problems and error messages while working with devices of the versions 1 and 2 on fast PCs are resolved: "DOSDIGSI" has been ported to Windows. The interface and the known operation remains the same (e.g. error no. SE.144.53406.1).

4. DIGSI may be used and tested for up to 30 days for free:  
The so called "Trial mode" allows you to use all option packages for a period of 30 days without restrictions. When you are requested to enter a serial number, enter the word "Trial".



## 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 (including the drivers for 7SJ511, 7SJ512, 7SJ531 and 7SJ65 not available in DIGSI 4.70).

### 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 when you click on the "DIGSI 4.7" button.

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 also always be up to date in the future, please use the offer at our download web site in the Internet at the address:

<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)  
FAQ: [www.siemens.com/ptd-support-faqde](http://www.siemens.com/ptd-support-faqde)

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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 operating language: No Effect on the CFC Border (No. SE.144.53410)

*Situation:*

You can change the PC device language of the DIGSI 4 Manager any time.

*Caution:*

If the operating 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 DISGI 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:*

For the moment, no priority can be applied to communication channels. Access via one connection may disturb the concurrent communication for another connection (changing 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).

- ❑ 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

..\Digsi4\SSLib\SSData\dyndin

User-defined static icons are located in the directory

..\Digsi4\SSLib\SSData\stauser.

- ❑ Object properties for Offline/Offline comparison

*Situation:*

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

- ❑ 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.

- 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.

- 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.

- 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:*

Help windows do not show any content. This case is dependent on the operating system and the installation environment. This problem is caused by a security update from Microsoft.

*Caution:*

To solve this problem you have to add a key to the MS Windows registry. This registry entry allows the correct display of the CHM help files. On our FAQ page you will find detailed information under the item "PA-2059-1A-20".

- ❑ Chinese characters not supported for older devices

*Situation:*

The IEC61850 System Configurator does not display chinese characters.

*Caution:*

Devices with the firmware version 4.5 (or older) do not support chinese characters. If you insert user-defined informations in the device matrix, this disturbing effect may appear.

- ❑ DIGSI does not run, when STEP7 was installed (No. 25093)

*Situation:*

If you install DIGSI on a PC on which STEP7 has been installed and de-installed again, it is not possible to run DIGSI after installation.

*Caution:*

Use "Settings - Control Panel - Software" to de-install the "Automation License Manager" (ALM). Now, it is possible to install DIGSI.

- ❑ Status of measured values (IEC61850) not correct (No. 25212)

*Situation:*

The CFC block "MV\_Get\_Status" does not work correctly, when the measured value is imported via an IEC61850 connection.

- ❑ It is not possible to configure measured values related to Sync function to IEC61850

*Situation:*

If the Sync function is activated (e.g. on a 7SJ64), it is not possible to configure measured values related to the Sync group to the IEC61850 interface. An error message appears, that "it is not possible to generate the IEC61850 device profile".

*Caution:*

Configure the required measured values to CFC and multiply the values in a CFC chart by "1". Configure the results as user-defined measured values to the system interface.



- ❑ It is not possible to create the device 7SJ639 (No. 25640)

*Situation:*

It is not possible to create the device 7SJ639 under the standard PC device language "English (US)".

*Caution:*

The device textpool for "English (US)" does not exist. In this case, make a copy of the file "7SJ639\_b.dbf" (textpool for british english) and rename the copy to "7SJ639\_c.dbf".

- ❑ Missing characters in Russian DIGSI 2

*Situation:*

The device manager for version 2 devices (DIGSI 2) does not allow to enter the characters "\$" and "=" directly.

*Caution:*

Press the <Alt> key and enter the ASCII code for the character:

For "\$": 36

For "=": 61

- ❑ IEC61850 System Configurator: Inexact error message for device update (No. 23140)

*Situation:*

If you configure in the DIGSI device matrix (Configuration) two signals with the same display text to the IEC61850 interface and update the devices ("Object Properties" of the station, "Update"), an error message will be displayed "Error in parameter set update".

- ❑ Redundancy not visible (No. 25906)

*Situation:*

While importing DEX files for devices from redundant systems the property for "redundant control system" is not imported.

*Caution:*

Open the register tab "Communication Parameters" in the "Object Properties" dialog of the device (DIGSI Manager) and set the "redundant control system" option.

