

SIEMENS

SIMOCODE pro

SIMOCODE ES

Programming and Operating Manual

Introduction	1
Installation notes	2
Installation/License key/ Uninstallation	3
Notes on use	4
Technical assistance Low Voltage	5

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER
indicates that death or severe personal injury will result if proper precautions are not taken.

⚠ WARNING
indicates that death or severe personal injury may result if proper precautions are not taken.

⚠ CAUTION
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠ WARNING
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Table of contents

1	Introduction	5
1.1	Installation and use	5
1.2	Security information	5
2	Installation notes	7
2.1	General information.....	7
2.2	Scope of supply.....	7
2.3	Hardware requirements.....	8
2.4	Software requirements	8
3	Installation/License key/Uninstallation	11
3.1	Installation	11
3.2	License key	11
3.3	Uninstallation.....	13
3.4	Advanced installation notes	14
3.4.1	Using a wheel mouse.....	14
3.4.2	Notes concerning the use of communications cards in PCs/programming devices.....	14
3.4.3	S7 Teleservice	16
4	Notes on use	17
4.1	Release notes	17
4.2	Information on the documentation.....	17
5	Technical assistance Low Voltage	19
	Index	21

Introduction

1.1 Installation and use

These notes take precedence over statements made in other documents.

Please read the notes carefully because they contain important information for installation and use of the **SIMOCODE ES V15** software for you.

1.2 Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit

<https://www.siemens.com/industrialsecurity>.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under

<https://www.siemens.com/industrialsecurity>.

Installation notes

2.1 General information

The installation notes contain important information that you require to install the **SIMOCODE ES V15** software.

Please read these notes before you start installation.

2.2 Scope of supply

This version is provided in six languages and runs under any operating system listed in Chapter Software requirements (Page 8).

Package	Article number	Scope
Premium		
Floating license	3ZS1 322-6CC13-0YA5	<ul style="list-style-type: none"> • 1 setup DVD • 1 license key on USB flash drive • 1 certificate of license
License download	3ZS1 322-6CE13-0YB5	<ul style="list-style-type: none"> • 1 license key per download • 1 certificate of license by download
Software update service	3ZS1 322-6CC13-0YL5	Software update service for 1 year with automatic extension. Requires the current software version.
Standard		
Floating license	3ZS1 322-5CC13-0YA5	<ul style="list-style-type: none"> • 1 setup DVD • 1 license key on USB flash drive • 1 certificate of license
License download	3ZS1 322-5CE13-0YB5	<ul style="list-style-type: none"> • 1 license key per download • 1 certificate of license by download
Software update service	3ZS1 322-5CC13-0YL5	Software update service for 1 year with automatic extension. Requires current software version.

Note

Combo licenses

All available license keys are combo licenses without exception.

2.3 Hardware requirements

SIMOCODE ES V15 supports all common Windows standard PCs and SIMATIC programming devices.

Working with **SIMOCODE ES V15** sets minimum requirements for the hardware. In order to work efficiently with **SIMOCODE ES V15**, use the recommended values.

Minimum hardware requirements:

Hardware	Requirements
Processor	Intel® Core™ i3-6100U, 2.30 GHz
RAM	4 GB
Hard disk	S-ATA with at least 8 GB of free storage space
Screen resolution	1024 x 768

Recommended PC hardware:

Hardware	Requirements
Computer	As of SIMATIC FIELD PG M5 Advanced (or comparable PC)
Processor	Intel® Core™ i5-6440EQ (up to 3.4 GHz)
RAM	16 GB or more (32 GB for large projects)
Hard disk	SSD with at least 50 GB of free storage space
Monitor	15.6" full HD display (1920 x 1080 or higher)

Note

SIEMENS communications processor required

To use **SIMOCODE ES V15** with PROFIBUS (Premium version only), you also need a SIEMENS communications processor for a PROFIBUS network.

2.4 Software requirements

Runtime environment

Operating systems

SIMOCODE ES V15 is released for the following operating systems:

Windows 7 (64 bit)

- Windows 7 Professional SP1
- Windows 7 Enterprise SP1
- Windows 7 Ultimate SP1

Windows 10 (64 bit)

- Windows 10 Pro version
- Windows Enterprise

Windows Server (64 bit)

- Windows Server 2012 R2 StdE (full installation)
- Windows Server 2016

NOTICE
Encrypting File System (EFS)
Never encrypt the installation folder (e.g. C:\Program Files\Siemens) with the EFS. Otherwise, important services such as the Automation License Manager will no longer function.

Supported security programs

The following security programs are compatible with SIMOCODE ES V15:

- Virus scanners:
 - Norton Internet Security
 - Trend Micro Office Scan Corporate Edition 11.0
 - McAfee Internet Security 10.0
 - Kaspersky Anti-Virus
 - Windows Defender
 - 360 Total Security
- Encryption software:
 - Microsoft Bitlocker

User rights

Restricted user rights are sufficient for working with SIMOCODE ES V15.

However, you must have administration rights to install SIMOCODE ES V15. All users working on this PC with SIMOCODE ES V15 require authorization to write to the installation folder of TIA Portal V15.

Compatibility with STEP 7

You need to install STEP7 V15 to integrate SIMOCODE ES V15 in STEP 7.

Online documentation

For information about the immediate operating and functional context, refer to the standard Windows Help. For more details about the structure of the documentation, see section Information on the documentation (Page 17).

Installation/License key/Uninstallation

3.1 Installation

Installation of SIMOCODE ES V15

Please close all applications (Microsoft Word, etc.) and the "Control Panel" window before starting the setup program. After installing SIMOCODE ES V15, you may have to restart Windows in order to activate all system variables.

Insert the SIMOCODE ES V15 DVD into the drive. A menu-prompted setup program guides you through the installation procedure for SIMOCODE ES V15. The setup program starts automatically when you insert the SIMOCODE ES V15 DVD. If you have deactivated this function on your computer, you can start setup in the MS Windows Explorer by double-clicking the "SETUP.EXE" program on the DVD. The setup guides you step by step through the installation procedure.

When setup is complete and you have (if necessary) restarted your computer, you can start SIMOCODE ES V15 by double-clicking on the desktop icon "TIA Portal V15" or, for example, under Microsoft Windows via the entry under "Start → SIEMENS Automation → TIA Portal V15."

NOTICE

TIA Portal V15 registers itself in Microsoft Windows system files

You must not move or rename any TIA Portal V15 files or folders using Microsoft Windows tools such as Explorer, nor should you modify any TIA Portal V15 data in the Windows registry.

Making such modifications can affect program execution.

3.2 License key

Before you can start working with SIMOCODE ES V15, you must transfer the license key (user authorization) to the computer. There are two ways of doing this:

- During installation of SIMOCODE ES V15, you will receive a prompt from the program setup if your computer does not have a suitable license key. You can then either have the setup program install the license key or you can install the license at a later time using the "Automation License Manager" program.
- If the license key cannot be installed during setup, continue the setup program without installing the license key. Then restart the computer and install the license key with the Start menu item "Siemens Automation\Automation License Manager".

Automation License Manager

NOTICE

Automation License Manager as a requirement for operating SIMOCODE ES V15

To operate SIMOCODE ES V15, you must make sure that the Automation License Manager is installed.

NOTICE

Installation of the Automation License Manager

The Automation License Manager prevents the authorizations and license keys from being installed on invalid drives or media, such as RAM drives, diskettes or compressed drives (e.g. DBLSPACE).

If the hard disk of a device with a removable drive bay is registered as "Exchangeable memory medium" and not as "hard disk", it will be treated like a DVD and cannot be used for installation of license keys.

In the case of compressed drives, you can install on the associated host drive.

Be sure to observe the notes on the Automation License Manager in the Readme file on the SIMOCODE ES V15 installation DVD under "InstData\ALM32_64\Media\ALM64".

Notes regarding fault-free operation of the license key

NOTICE

The USB flash drive must not be write-protected.

Without write-protection of the USB flash drive, there is a danger that viruses could be transferred from the hard disk to the USB flash drive.

You should therefore run a virus check on your programming device / PC before you install/uninstall a license key.

NOTICE

Using an optimizing program

If you use an optimizing program that enables you to move fixed blocks of memory, only use this option once you have transferred the license key from the hard disk back to the USB flash drive.

NOTICE

Cluster on the target drive

The license key will create a cluster with a special identification on the target drive. Some inspection programs will identify this cluster as "defective."

Do not attempt to restore it.

NOTICE**Transferring the license key to the USB flash drive**

Remember to copy the license key to the USB flash drive before formatting, compressing or restoring your hard disk or before installing a new operating system.

NOTICE**Risk of losing a license key**

If a backup copy of your hard disk contains copies of license keys, there is a risk that these copies can overwrite the valid installed license keys and thus destroy them when you restore your backup data to the hard disk.

To prevent a valid license key from being overwritten by a backup copy, you are strongly advised to remove all license keys or exclude them from the backup process before you start with the backup.

Trial license

If no valid license key is installed for SIMOCODE ES V15, a trial license key is used. This is supplied and installed by default together with SIMOCODE ES V15. However, SIMOCODE ES V15 can only be used for 21 days with this license key. When SIMOCODE ES V15 is started for the first time without a valid license key, activation of the trial license key is offered.

3.3 Uninstallation

NOTICE**Uninstalling SIMOCODE ES V15**

Uninstallation must be performed in the usual MS Windows way.

Uninstall your software package (e.g. "Siemens Totally Integrated Automation Portal V15") via the Windows application "Software" (e.g. under Windows via "Control Panel → Programs and Features").

3.4 Advanced installation notes

3.4.1 Using a wheel mouse

NOTICE
Manufacturer's driver
If you use a wheel mouse, make sure that the drivers supplied by the wheel mouse manufacturer have been installed. If they are not, you may find that the functions of the wheel mouse wheel are not always supported by SIMOCODE ES V15.

3.4.2 Notes concerning the use of communications cards in PCs/programming devices

CP5611 (SIMATIC NET PROFIBUS interface via PCI bus)

You require a PC or a programming device with PCI bus to use the CP5611 card. You can then address SIMATIC stations via MPI or PROFIBUS (9.6 Kbps to 12 Mbps).

If you install SIMOCODE ES V15 after the CP has been inserted in the computer, the plug-and-play mechanism enters the CP5611 in the Device Manager of the Control Panel\System in "Other Devices". Therefore the CP is sometimes not recognized when installing SIMOCODE ES V15.

In such cases, remove the CP5611 in the Device Manager after installing SIMOCODE ES V15 and reboot your computer.

Observe the notes in the online help under "Setting the PG/PC interface."

CP5512 (SIMATIC NET PROFIBUS interface via PC card)

A PC or a programming device with a PC card slot is required to use the CP 5512. You can then address SIMATIC stations via MPI or PROFIBUS (9.6 Kbps to 12 Mbps).

CP5711 (SIMATIC NET PROFIBUS interface via USB 2.0)

A PC or a programming device with a USB slot is required to use the CP5711. You can then address SIMATIC stations via MPI or PROFIBUS (9.6 Kbps to 12 Mbps).

Programming device/PC settings

To start up the plug-and-play-enabled modules (e.g. CP5512, CP5611 or CP5711), the following procedure is recommended under MS Windows:

1. Install SIMOCODE ES V15.
2. Close MS Windows, switch off the PC and insert the card.

Note

The CP5512 can also be plugged in during operation.

3. The communications card is automatically installed after switching on again (or plugging in the CP5512).
4. The hardware assistant appears under MS Windows. In the first dialog box that opens, select the option "No, not this time." Confirm all further dialog boxes (not with Cancel!).
5. Start TIA Portal V15 in the project view, and in the project navigation open folder "Online Access."
6. Right-click the interface adapter whose settings you would like to change. Select "Properties" in the shortcut menu. In this dialog box, change the properties of module.

Note

Observe the notes in the online help under "Setting the PG/PC interface."

Note

Installing the communications drivers

When SIMOCODE ES V15 is installed on programming devices, the communication drivers are installed automatically and the default settings are accepted.

Interrupt and address under MS Windows 7

The settings for interrupt and address cannot be changed in MS Windows 7.

The set values can be viewed as follows: For example, under "Start → Settings → Control Panel → Administrative Tools" open Computer Management and then "System." Under "Device Manager," you can view the values of the individual modules and under "System Information → Hardware Resources," the overview of the assigned resources.

Note

Reserving an interrupt and address range for PCI components

In the BIOS of the PC, under certain conditions a specific interrupt and address range can be reserved for PCI components.

Consult your PC or BIOS vendor.

Operating networks exclusively with passive nodes (slaves)

Before you start working with your programming device/PC on a network to which only slaves (passive nodes) are currently connected, you must activate the option "Only master on the bus". Otherwise, your programming device/PC will remain inactive.

To do this, proceed as follows:

1. In the project navigation in the "Online Access" folder, right-click on the programming device/PC interface and select command "Properties" from the shortcut menu.
2. Display the properties of the module parameters used.
3. Activate the option "Only master on the bus."
4. Close the dialog box again.

3.4 Advanced installation notes

Once you have finished working on this network, you should deactivate the option. In this way, you will protect the network from possible interruptions caused by plugging in the PROFIBUS/ MPI cable while the interface on your programming device/PC is active.

3.4.3 S7 Teleservice

For SIMOCODE ES V15, the "S7 Teleservice" function is only available via MPI when used with TS adapter I or II.

Notes on use

4.1 Release notes

The information contained in the release notes is more up to date than the information in the online help and therefore takes precedence over it.

4.2 Information on the documentation

The SIMOCODE ES V15 documentation is available via the online help. You can open the online help from the menu item "Help → Show Help." The "information system" contains all the essential information that you need for working with the SIMOCODE ES V15 software.

Technical assistance Low Voltage

Telephone: +49 (0) 911-895-5900 (8°° to 17°° CET)

Fax: +49 (0) 911-895-5907

E-mail: technical-assistance@siemens.com

Internet (<http://www.siemens.com/lowvoltage/technical-assistance>)

Index

A

Automation License Manager, 12
Automation License Manager as a requirement for operating SIMOCODE ES V15, 12

C

Combo licenses, 7
Communication drivers, 15
CP5512 (SIMATIC NET PROFIBUS interface via PC card), 14
CP5611 (SIMATIC NET PROFIBUS interface via PCI bus), 14
CP5711 (SIMATIC NET PROFIBUS interface via USB 2.0), 14

E

Encrypting File System (EFS), 9

H

Hardware requirements, 8

I

Information system, 17
Installation of SIMOCODE ES V15, 11
Installation of the Automation License Manager, 12
Interrupt and address under MS Windows 7, 15

M

Manufacturer's driver, 14

N

Notes regarding fault-free operation of the license key, 12

O

Online documentation, 10

Online help, 17
Operating networks exclusively with passive nodes (slaves), 15
Operating systems, 8

P

Premium, 7
Programming device/PC settings, 14

R

Reserving an interrupt and address range for PCI components, 15

S

S7 Teleservice, 16
Security programs, 9
SIEMENS communications processor, 8
Standard, 7

T

Trial license, 13

U

Uninstalling SIMOCODE ES V15, 13
User rights, 9

