

Software for SIMATIC controllers



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Brochures

For brochures serving as selection guides for SIMATIC products refer to:

www.siemens.com/simatic/printmaterial

Software for SIMATIC controllers

Introduction

Software for SIMATIC Controller

Overview



- System of seamlessly interconnected software tools for SIMATIC S7 and SIMATIC WinAC
- With user-friendly functions for all phases of an automation project
- Comprising:
 - Controller software in the TIA Portal
 - STEP 7 programming software
 - Options for programming and design
 - Options for diagnostics and service
 - Options for technology and drive systems

For brochures serving as selection guides for SIMATIC products refer to:

www.siemens.com/simatic/printmaterial

Overview Licensing

Siemens Industry Automation & Drive Technologies offers various types of software license.

For further information, see catalog section 15, page 15/30.

Overview Software Update Service

- Service for automatic dispatch of all new software versions during contract lifetime
- Reduced logistics effort thanks to automatic contract extension
- Reduced costs as updates are provided free of charge

Ordering

- The Software Update Service is ordered in the same way as any other product. The corresponding order number is given in the ordering information of the software product in question.
- You must own the current version of the software.
- One Software Update Service is ordered for each software license installed.
- The Software Update Service runs for 1 year from date of order.
- It is extended automatically by a further year in each case, as long as it is not canceled 3 months before it expires.
- An annual lump sum is invoiced per license.

Application

SIMATIC software is continuously enhanced and improved. The **Software Update Service** is the easiest way to regularly take advantage of these improvements. This service automatically sends new software updates when they are released so you always have the latest version.

The Software Update Service

- Saves time and effort:
Once it is ordered, the Software Update Service is automatically renewed every year.
- Lowers costs:
The service pays for itself after the first update as it costs less than an individually ordered update.
- Makes budgeting easier:
Software expenditures can be accounted for early in the budgeting process and they are easier to write off.

Design**Scope of delivery**

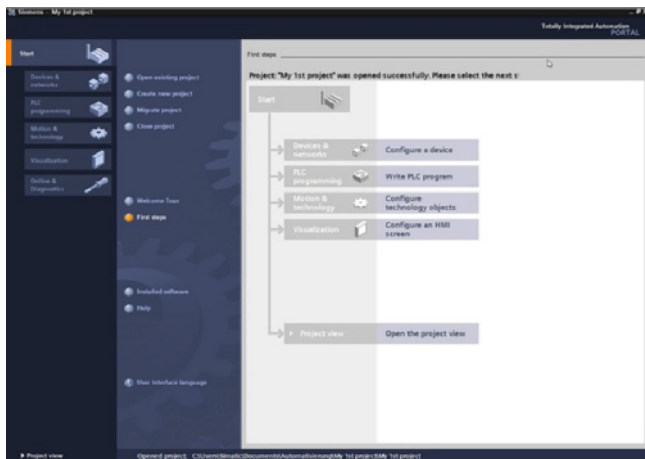
- All software versions released after ordering the Software Update Service (usually several consignments per year)
- SIMATIC Customer Support Knowledge Base CD-ROM with FAQs, tips & tricks and downloads (several issues per year)

Software for SIMATIC controllers

Controller Software inside TIA Portal

STEP 7 (TIA Portal)

Overview



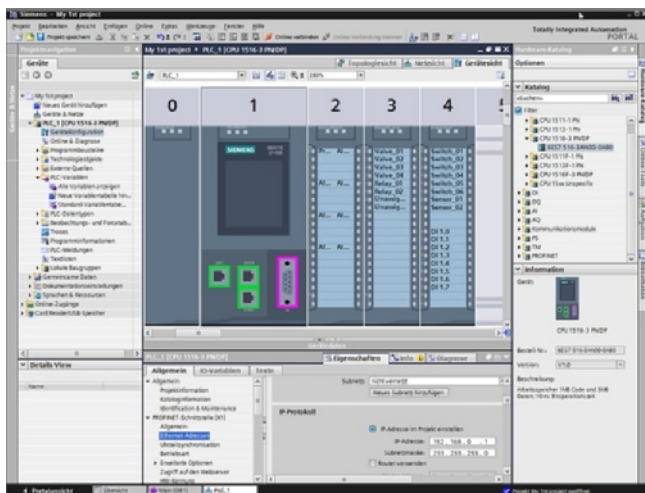
STEP 7 V12 (TIA Portal), portal view

Intuitive, efficient and future-oriented - the engineering software for programming the SIMATIC controllers

SIMATIC STEP 7 Professional V12 is the engineering system for the SIMATIC controllers S7-1200, S7-300, S7-400, WinAC, and also optimally supports the new SIMATIC S7-1500 controllers.

SIMATIC STEP 7 Basic V12 is the engineering system for the S7-1200.

STEP 7 V12 is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal), which offers the user a uniform, efficient and intuitive solution to all automation tasks.



STEP 7 V12 (TIA Portal), device view: configuring and parameterizing in photographically realistic representation

Technical specifications

STEP 7 Professional / Basic V12 (TIA Portal)			
Type of license	Floating license		
Software class	A		
Current version	V12		
Target system	SIMATIC S7-1200, S7-1500, S7-300, S7-400, WinAC		
Operating system	Microsoft Windows XP Home SP3 (STEP 7 Basic only) Windows XP Professional SP3 (32 bit) Microsoft Windows 7 Home Premium SP1 (STEP 7 Basic only) Microsoft Windows 7 Professional SP1 (32/64 bit) Microsoft Windows 7 Enterprise SP1 (32/64 bit) Microsoft Windows 7 Ultimate SP1 (32/64 bit) Microsoft Server 2003 R2 Std. SP2 (32 bit) Microsoft Server 2008 Std. SP2 (32/64 bit)		
Recommended PG/PC hardware with 32 bit operating system	Processor: Core i5, 2.4 GHz or comparable	RAM: 3 GB	Graphics: 1280x1024
Recommended PG/PC hardware with 64 bit operating system	Processor: Core i5, 2.4 GHz or comparable	RAM: 8 GB	Graphics: 1280x1024
Note	Includes the IEC programming languages SCL, LAD, FBD, STL		

Compatibility with other SIMATIC products

STEP 7 Professional / Basic V12 (incl. WinCC Basic V12) can be installed on a PC in parallel with other versions of STEP 7 V11, V5.4 or V5.5, STEP 7 Micro/WIN, WinCC flexible (from 2008) and WinCC (V7.0 SP2 or higher).

Ordering data	Order No.	Order No.
STEP 7 Professional / Basic V12 Target system: SIMATIC S7-1200, S7-1500, S7-300, S7-400, WinAC Requirement: Windows XP Home SP3 (only STEP 7 Basic), Windows XP Professional SP3 (32 bit), Windows 7 Home Premium SP1 (only STEP 7 Basic), Windows 7 Professional SP1 (32/64 bit), Windows 7 Enterprise SP1 (32/64 bit), Windows 7 Ultimate SP1 (32/64 bit), Microsoft Server 2003 R2 Std. SP2 (32 bit), Microsoft Server 2008 Std. SP2 (32/64 bit) Delivery package: German, English, Chinese, Italian, French, Spanish		STEP 7 Professional V12, Trial License 6ES7 822-1AA02-0YA7
		STEP 7 Professional V12 promotional package Only valid if ordered together with a Software Update Service 6ES7 810-5CC04-0YE2 (STEP 7 Professional and STEP 7 Professional in TIA Portal). <ul style="list-style-type: none"> PowerPack & upgrade from STEP 7 V5.5 to STEP 7 Professional 2012/V12, Floating License. Prerequisite is an existing STEP 7 Software Update Service. PowerPack & upgrade from STEP 7 V5.4/V5.5, ... to STEP 7 Professional 2012/V12, Floating License. Prerequisite is an existing STEP 7 Standard/Professional installation.
STEP 7 Professional V12, Floating License	6ES7 822-1AA02-0YA5	6ES7 822-1AA02-0XC2
STEP 7 Professional V12, Floating License, software download incl. license key ¹⁾ E-mail address required for delivery	6ES7 822-1AE02-0YA5	6ES7 822-1AA02-0XC3
		Upgrade STEP 7 Professional V11 to STEP 7 Professional V12, Floating License 6ES7 822-1AA02-0YE5
		Upgrade from STEP 7 Prof. V11 to STEP 7 Professional V12, Floating License, software download incl. license key ¹⁾ E-mail address required for delivery
		6ES7 822-1AE02-0YE5

¹⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>

Software for SIMATIC controllers

Controller Software inside TIA Portal

STEP 7 (TIA Portal)

Ordering data	Order No.	Order No.
Upgrade from STEP 7 Prof. 2006/2010 to STEP 7 Professional V12, Floating License	6ES7 822-1AA02-0XE5	
Upgrade from STEP 7 Prof. 2006/2010 to STEP 7 Professional V12, Floating License, software download incl. license key¹⁾ E-mail address required for delivery	6ES7 822-1AE02-0XE5	
PowerPack & upgrade from STEP 7 V5.4/V5.5 to STEP 7 Professional V12, Floating License	6ES7 822-1AA02-0XC5	
PowerPack & upgrade from STEP 7 V5.4/V5.5 to STEP 7 Professional V12, Floating License, software download incl. license key¹⁾ E-mail address required for delivery	6ES7 822-1AE02-0XC5	
Powerpack STEP 7 Basic V12 to STEP 7 Professional V12, Floating License	6ES7 822-1AA02-0YC5	
Powerpack STEP 7 Basic V12 to STEP 7 Professional V12, Floating License, software download incl. license key¹⁾ E-mail address required for delivery	6ES7 822-1AE02-0YC5	
STEP 7 Basic V12, Floating License	6ES7 822-0AA02-0YA5	
STEP 7 Basic V12, Floating License, software download incl. license key¹⁾ E-mail address required for delivery	6ES7 822-0AE02-0YA5	
STEP 7 Basic V12, Trial License	6ES7 822-0AA02-0YA7	
Upgrade from STEP 7 Basic V11 to STEP 7 Basic V12, Floating License	6ES7 822-0AA02-0YE5	
Upgrade from STEP 7 Basic V11 to STEP 7 Basic V12, Floating License, software download incl. license key¹⁾ E-mail address required for delivery	6ES7 822-0AE02-0YE5	
Upgrade STEP 7 Basic V10.5 to STEP 7 Basic V11, floating license	6ES7 822-0AA01-0YE0	
Upgrade from STEP 7 Basic V10.5 to STEP 7 Basic V11, Floating License, license key download without software or documentation²⁾ E-mail address required for delivery	6ES7 822-0AA01-0YK5	
		Software Update Service
		For a period of 12 months and for a fixed price, the customer is automatically provided with all upgrades and service packs for each installed software package. The contract is automatically extended by a further year unless canceled at least 12 weeks prior to expiration. Requires the current software version
		Software Update Service (Standard Edition)²⁾
		The delivery is implemented according to the number of ordered SUS products (e.g. 10 upgrade packages with 10 DVDs, 10 USB flash drives, etc.)
		<ul style="list-style-type: none"> • STEP 7 Professional V1x • STEP 7 Professional and STEP 7 Professional in the TIA Portal • STEP 7 Basic
		6ES7 822-1AA00-0YL5
		6ES7 810-5CC04-0YE2
		6ES7 822-0AA00-0YL0
		Software Update Service (Compact Edition)²⁾
		The delivery items are combined. For multiple contracts, only 1 package with 1 data medium set, 1 USB flash drive with the corresponding number of licenses and the corresponding number of COLs will be supplied.
		Delivery items to be combined must be ordered as one item.
		<ul style="list-style-type: none"> • STEP 7 Professional V1x • STEP 7 Professional and STEP 7 Professional in the TIA Portal • STEP 7 Basic
		6ES7 822-1AA00-0YM5
		6ES7 810-5CC00-0YM2
		6ES7 822-0AA00-0YM0

¹⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>

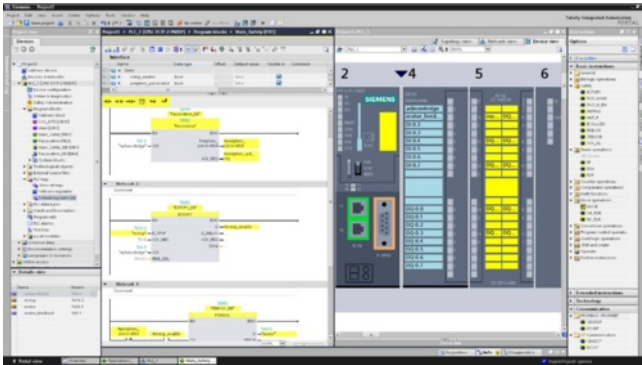
²⁾ For more information on the Software Update Service, see page 11/3.

Software for SIMATIC controllers

Controller Software inside TIA Portal

STEP 7 Safety (TIA Portal)

Overview



- For creating safety-related programs in the STEP 7 operator interface
- For seamless and easy to use integration of safety-related functions into the standard automation
- All the required configuration and programming tools are integrated into the STEP7 operator interface and utilize a common project structure

Ordering data

Order No.

STEP 7 Safety Advanced V11

Task:

Engineering tool for configuring fail-safe user programs for SIMATIC S7-300F, S7-400F, WinAC RTX F, ET 200S, ET 200M, ET 200iSP, ET 200pro, ET 200eco

Requirement:

STEP 7 Professional V11 SP1

Floating license for 1 user

6ES7 833-1FA11-0YA5

Floating license for 1 user, license key download without software and documentation²⁾;

6ES7 833-1FA11-0YH5

email address required for delivery

Software Update Service (Standard Edition)¹⁾

6ES7 833-1FC00-0YX2

The delivery is implemented according to the number of ordered SUS products (e.g. 10 upgrade packages with 10 DVDs, 10 USB flash drives, etc.) Requires the current software version.

Software Update Service (Compact Edition)¹⁾

6ES7 833-1FC00-0YM2

The delivery items are combined. For several contracts, only 1 package with 1 data medium set, 1 USB flash drive with the corresponding number of licenses and the corresponding number of COLs will be supplied.

The deliveries that are to be grouped together must be ordered as one item.

Requires the current software version.

Minimum order quantity: 5 units

STEP 7 Safety Advanced Upgrade

6ES7 833-1FA11-0YE5

Distributed Safety V5.4 SP5 and STEP 7 Safety Advanced V11 for parallel use; incl. software on CD; Combo License for 1 user

6ES7 833-1FA11-0YK5

Distributed Safety V5.4 SP5 and STEP 7 Safety Advanced V11 for parallel use; includes software on CD; combo license for 1 user, license key download without software or documentation²⁾;

email address required for delivery

¹⁾ For more information on the software update service, see page 11/3.

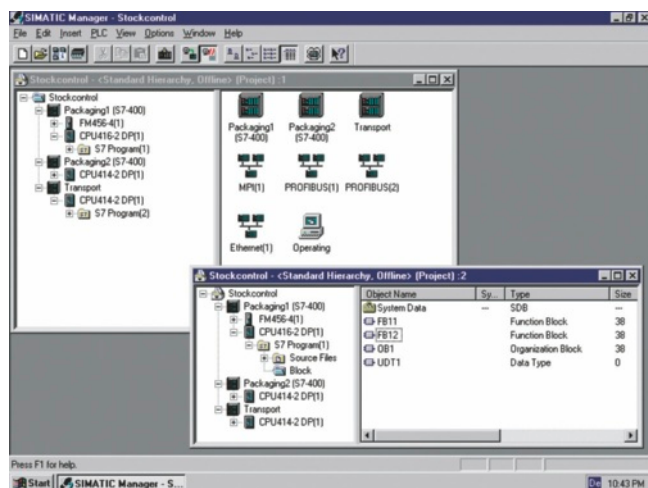
²⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>

Software for SIMATIC controllers

STEP 7 programming software

STEP 7

Overview



- STEP 7 basic software:
The standard tool for the SIMATIC S7, SIMATIC C7 and SIMATIC WinAC automation systems
- Makes use of the full performance capabilities of the systems
- User-friendly functions for all phases of an automation project:
 - Configuring and parameterizing the hardware
 - Definition of communication
 - Programming
 - Testing, commissioning and service
 - Documentation, archiving
 - Operating, diagnostics functions

Components for connecting a PC to MPI and PROFIBUS

The components described below are used to connect programming devices and PCs (incl. notebooks) to PROFIBUS and to the multipoint SIMATIC S7 MPI interface in conjunction with STEP 7.

PC adapter USB A2

- USB adapter to connect PCs/notebooks and SIMATIC PG/PC to the SIMATIC S7 automation system via the USB port
- For connection to USB 1.1, 2.0 and 3.0 interfaces
- Power supply via the USB port
- PROFIBUS connection with up to 12 Mbit/s
- Supports routing
- Automatic transmission rate and profile search
- Can be used under Windows XP SP2 or higher / Windows 7 or higher, including 64-bit systems
- Scope of delivery:
 - PC adapter USB A2.
 - CD with drivers for the PC adapter USB A2
 - USB cable
 - MPI cable, 0.3 m

CP5512

- For programming devices/ PCs/notebooks with PCMCIA slot
- PCMCIA slot Type II (32 bit cardbus)
- Incl. adapter with 9-pin sub-D socket for connection to PROFIBUS.

CP 5612/CP 5612-MPI

- For programming devices/PCs with PCI slot
- Short PCI card (32 bit)
- CP 5612-MPI including MPI cable

Components for connecting the PC to Industrial Ethernet

The PC modules described below are used to connect programming devices and AT-compatible PCs/notebooks to Industrial Ethernet in conjunction with STEP 7 and SOFTNET-PG (as of V6.0).

CP 1512

- For programming devices/ PCs/notebooks with PCMCIA slot
- PCMCIA slot Type II (32 bit cardbus); 10/100 Mbit/s
- Incl. adapter with RJ45 socket for connection to Industrial Ethernet

CP 1612

- For programming devices/PCs with PCI slot
- Short PCI card (32 bit); 10/100 Mbit/s
- Incl. RJ45 socket for connection to Industrial Ethernet

Please refer to the respective product catalog for technical information regarding product versions and supported operating systems.

You will find additional information about the online connection of PCs and SIMATIC S7/C7 controllers under "SIMATIC NET Communication Systems".

Technical specifications

Standard Tool	STEP 7
Type of license	Floating license
Software class	A
Current version	V 5.5
Target system	SIMATIC S7-300 SIMATIC S7-400
Operating system	Windows XP Professional, Windows 7 Professional, Windows 7 Ultimate
Main memory expansion in PG / PC, min.	Depends on Microsoft Windows operating system used. Recommendation: 1 to 2 GB
Hard drive requirement in PG / PC	Depending on scope of installation, 650 to 900 MB
Size of user program in the CPU	approx. factor 1.5 compared with STEP 5 with AWL (STL - instruction list), KOP (LAD - ladder diagram), FUP (FBD - function block diagram)
Comment	-

Ordering data	Order No.	Order No.
STEP 7 Version 5.5 Target system: SIMATIC S7-300/400, SIMATIC C7, SIMATIC WinAC Requirements: Windows XP Prof., Windows 7 Professional / Ultimate Delivery package: German, English, French, Spanish, Italian; incl. license key on USB stick, with electronic documentation Floating license on DVD Floating License, license key down- load without software and documentation ¹⁾ ; email address required for delivery Rental license for 50 hours Rental License for 50 hours, license key download without software and documentation ¹⁾ ; email address required for delivery Upgrade Floating License 3.x/4.x/5.x to V5.5; on DVD Trial License STEP 7 V5.5; on DVD, 14 day trial	6ES7 810-4CC10-0YA5 6ES7 810-4CE10-0YB5 6ES7 810-4CC10-0YA6 6ES7 810-4CE10-0YB6 6ES7 810-4CC10-0YE5 6ES7 810-4CC10-0YA7	STEP 7 reference manuals Consisting of STL, LAD and FBD manuals as well as a reference manual for standard and system functions for SIMATIC S7-300/400 German English French Spanish Italian SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates EPROM programming device, USB prommer For programming SIMATIC memory cards and EPROM modules MPI cable For linking SIMATIC S7 and PG through MPI (5 m) Components for connecting a PC to MPI and PROFIBUS <i>For PCs with a free PCI slot:</i> CP 5612 CP 5612 MPI incl. MPI cable (5 m) <i>For PCs with a free PCMCIA slot:</i> CP 5512 For Windows XP Professional <i>For PCs without a free PCI slot:</i> USB A2 PC adapter for connecting a PG/PC or Notebook to PROFIBUS or MPI; USB cable included in scope of delivery Components for connecting the PC to Industrial Ethernet <i>For PCs with a free PCI slot:</i> Layer 2 Ethernet cards <i>For PCs with a free PCMCIA slot:</i> SOFTNET-IE RNA V7.1 (Win XP/Vista/Server2003) SOFTNET-IE RNA V8.1 (Win 7/server2008)
STEP 7 Version 5.5 Japanese Target system: SIMATIC S7-300/400, SIMATIC C7, SIMATIC WinAC Requirements: Windows XP Professional Japanese Delivery package: English, Japanese; incl. license key on USB stick, with electronic docu- mentation Floating License Japanese on DVD Upgrade Floating License Japanese 3.x/4.x/5.x to V5.5; on DVD	6ES7 810-4CC10-0JA5 6ES7 810-4CC10-0JE5	6ES7 792-0AA00-0XA0 6ES7 901-0BF00-0AA0
STEP 7 Version 5.5, Chinese Target system: SIMATIC S7-300/400, SIMATIC C7, SIMATIC WinAC Requirements: Windows XP Professional Chinese Delivery package: English, Chinese; incl. license key on USB stick, with electronic docu- mentation Floating License Chinese on DVD Upgrade Floating License Chinese 3.x/4.x/5.x to V5.5; on DVD	6ES7 810-4CC10-0KA5 6ES7 810-4CC10-0KE5	6GK1 561-2AA00 6GK1 561-2AM00 6GK1 551-2AA00 6GK1 571-0BA00-0AA0
Documentation package STEP 7 basic information Comprising Getting Started, hardware configuration manual, programming manual, migration manual German English French Spanish Italian	6ES7 810-4CA10-8AW0 6ES7 810-4CA10-8BW0 6ES7 810-4CA10-8CW0 6ES7 810-4CA10-8DW0 6ES7 810-4CA10-8EW0	6GK1 704-1PW71-3AA0 6GK1 704-1PW08-1AA0

¹⁾ For up-to-date information and download availability, see:
<http://www.siemens.com/tia-online-software-delivery>

Software for SIMATIC controllers

STEP 7 programming software

STEP 7 Professional

Overview



STEP 7 Professional supports all IEC languages.

In addition to the languages recognized by STEP 7

- LAD
- FBD
- IL

The following are also available:

- "Sequential Function Chart"
- "Structured Text"

An offline simulation of programs created with these languages is included. STEP 7 Professional thus replaces the combination of the individual packages STEP 7, S7-GRAPH, S7-SCL and S7-PLCSIM.

A POWERPACK is offered to customers who use STEP 7 already and wish to change. A valid STEP 7 license is required for purchasing the POWERPACK. A separate update service is available for STEP 7 Professional .

Technical specifications

Standard Tool	STEP 7 Professional
Type of license	Floating license
Software class	A
Current version	Edition 2010
Target system	SIMATIC S7-300 SIMATIC S7-400 SIMATIC C7
Operating system	Windows XP Professional, Windows 7 Professional, Windows 7 Ultimate
Main memory expansion in PG / PC, min.	Depends on Microsoft Windows operating system used. Recommendation: 1 to 2 GB
Hard drive requirement in PG / PC	Depending on scope of installation, 700 to 1000 MB
Size of user program in the CPU	approx. factor 1.5 compared with STEP 5 with AWL (STL - instruction list), KOP (LAD - ladder diagram), FUP (FBD - function block diagram)
Comment	Includes all 5 IEC programming languages KOP (LAD - ladder diagram), FUP (FBD - function block diagram), AWL (STL - instruction list), SCL (structured control language), GRAPH and the PLC simulation software S7-PLCSIM

Software for SIMATIC controllers

STEP 7 programming software

STEP 7 Professional

Ordering data	Order No.	Order No.
STEP 7 Professional 2010/V12 Target system: SIMATIC S7-300/400, SIMATIC C7, SIMATIC WinAC Requirements: Windows XP Prof. (32 bit), Windows 7 Professional / Ultimate (32/64 bit) Delivery package: German, English, French, Spanish, Italian; license key on USB stick, with electronic documentation		
Floating combo license on DVD	6ES7 810-5CC11-0YA5	
Floating License, license key download²⁾ without software and documenta- tion; email address required for delivery	6ES7 810-5CE11-0YB5	
Rental license for 50 hours	6ES7 810-5CC11-0YA6	
Rental License for 50 hours, license key download²⁾ without software and documenta- tion; email address required for delivery	6ES7 810-5CE11-0YB6	
Upgrade of Floating License to 2010 Edition; on DVD	6ES7 810-5CC11-0YE5	
Powerpack Floating License for upgrading from STEP 7 to STEP 7 Professional	6ES7 810-5CC11-0YC5	
Trial License STEP 7 Professional 2010; on DVD, runs for 14 days	6ES7 810-5CC11-0YA7	
Software Update Service For a period of 12 months and for a fixed price, the customer is automat- ically provided with all upgrades and service packs for each installed software package. The contract is automatically extended by a further year unless canceled up to 12 weeks prior to expiration. Requires the current software version		
Software Update Service (Standard Edition)¹⁾ The delivery is implemented according to the number of ordered SUS products (e.g. 10 upgrade packages with 10 DVDs, 10 USB flash drives, etc.) • STEP 7 Professional and STEP 7 Professional in the TIA Portal	6ES7 810-5CC04-0YE2	
Software Update Service (Compact Edition)¹⁾ The delivery items are combined. For several contracts, only 1 pack- age with 1 data medium set, 1 USB flash drive with the corresponding number of licenses and the corre- sponding number of COLs will be supplied. The delivery items to be combined must be ordered as one item. • STEP 7 Professional and STEP 7 Professional in the TIA Portal	6ES7 810-5CC00-0YM2	
		Documentation package STEP 7 basic information Comprising Getting Started, hardware configuration manual, programming manual, migration manual German 6ES7 810-4CA10-8AW0 English 6ES7 810-4CA10-8BW0 French 6ES7 810-4CA10-8CW0 Spanish 6ES7 810-4CA10-8DW0 Italian 6ES7 810-4CA10-8EW0
		STEP 7 reference manuals Consisting of STL, LAD and FBD manuals as well as a reference manual for standard and system functions for SIMATIC S7-300/400 German 6ES7 810-4CA10-8AW1 English 6ES7 810-4CA10-8BW1 French 6ES7 810-4CA10-8CW1 Spanish 6ES7 810-4CA10-8DW1 Italian 6ES7 810-4CA10-8EW1
		SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC 6ES7 998-8XC01-8YE0
		SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates 6ES7 998-8XC01-8YE2
		EPROM programming device, USB prommer For programming SIMATIC memory cards and EPROM modules 6ES7 792-0AA00-0XA0
		MPI cable For linking SIMATIC S7 and PG through MPI (5 m) 6ES7 901-0BF00-0AA0

¹⁾ For more information on the software update service, see page 11/3.

²⁾ For up-to-date information and download availability, see:
<http://www.siemens.com/tia-online-software-delivery>

Software for SIMATIC controllers

STEP 7 programming software

STEP 7 Professional

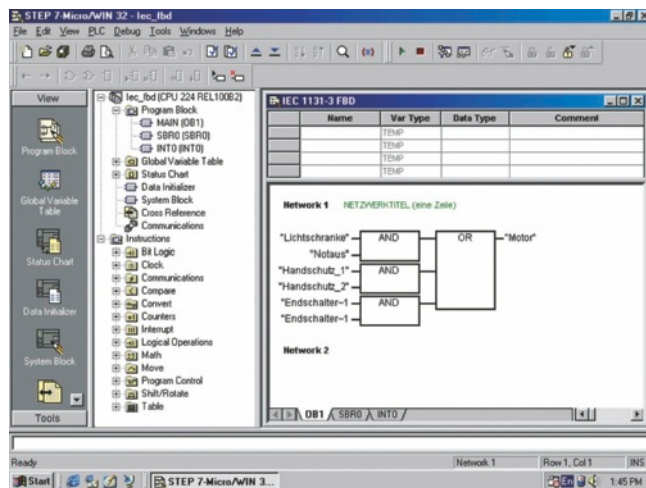
Ordering data	Order No.		Order No.
Components for connecting a PC to MPI and PROFIBUS <i>For PCs with a free PCI slot:</i> CP 5612 CP 5612 MPI incl. MPI cable (5 m)	6GK1 561-2AA00 6GK1 561-2AM00	Components for connecting the PC to Industrial Ethernet <i>For PCs with a free PCI slot:</i> Layer 2 Ethernet cards	
<i>For PCs with a free PCMCIA slot:</i> CP 5512 For Windows XP Professional	6GK1 551-2AA00	<i>For PCs with a free PCMCIA slot:</i> SOFTNET-IE RNA V7.1 (Win XP/Vista/Server2003)	6GK1 704-1PW71-3AA0
<i>For PCs without a free PCI slot:</i> USB A2 PC adapter for connecting a PG/PC or Notebook to PROFIBUS or MPI; USB cable included in scope of delivery	6GK1 571-0BA00-0AA0	SOFTNET-IE RNA V8.1 (Win 7/server2008)	6GK1 704-1PW08-1AA0

Software for SIMATIC controllers

STEP 7 programming software

STEP 7 Micro/WIN

Overview



- The simple, easy to learn programming software under Windows 2000/XP for the SIMATIC S7-200
- A large number of wizards support the programming even of difficult automation tasks
- For fast startup and timesaving programming
- With large scope of functions
- Based on standard Windows software (user interface similar to standard applications, such as Microsoft Word, Outlook)
- With 3 standard editors STL, LAD and CSF; you can switch between these editors at any time
- Generation, exporting and importing of user-specific libraries (including standard commands and user-defined subroutines)
- Documentation CD with manuals, software tools and example programs as support

Technical specifications

Standard tool	STEP 7 Micro/WIN
Type of license	Single license
Software class	A
Current version	V 4.0
Target system	SIMATIC S7-200
Operating system	Windows XP SP3 (32-bit) Windows 7 (32/64-bit)
Main memory expansion in programming device / PC, min.	32 MB
Hard drive requirement in programming device / PC	50 MB
Size of user program in the CPU	approx. factor of 1.0 compared with STEP 5 for STL and LAD

Ordering data

Order No.

STEP 7-Micro/WIN V4 programming software

Target system:
All CPUs of the SIMATIC S7-200
Requirement:
Windows XP (32-bit), Windows 7 (32/64-bit); on PG or PC
Delivery package:
German, English, French, Spanish, Italian, Chinese; with online documentation

Single license

6ES7 810-2CC03-0YX0

Single license upgrade¹⁾

6ES7 810-2CC03-0YX3

To be ordered separately:

Intelligent RS 232/PPI multi-master cable

6ES7 901-3CB30-0XA0

For connecting devices with RS 232 interface to SIMATIC S7-200 or PPI network; master in multi-master PPI network

Intelligent USB/PPI multi-master cable

6ES7 901-3DB30-0XA0

for connecting devices with USB interface to SIMATIC S7-200 or PPI network; master in multi-master PPI network

Components for connecting a PC to MPI and PROFIBUS

For PCs with a free PCI slot:

CP 5612

6GK1 561-2AA00

CP 5612 MPI

6GK1 561-2AM00

incl. MPI cable (5 m)

For PCs with a free PCMCIA slot:

CP 5512

6GK1 551-2AA00

for Windows XP Professional

For PCs without a free PCI slot:

PC adapter USB A2

6GK1 571-0BA00-0AA0

for connecting a PG/PC or notebook to PROFIBUS or MPI, USB cable included in scope of supply

¹⁾ Upgrade for all previous STEP 7 Micro/WIN and STEP 7 Micro/DOS versions

Software for SIMATIC controllers

STEP 7 programming software

S7-SCL

Overview

```

FUNCTION_BLOCK FB27
VAR_INPUT
  SIG_SEL      : INT := 0;
  GRP1_SEL    : BOOL := 0;
  GRP2_SEL    : BOOL := 0;
  GRP3_SEL    : BOOL := 0;
END_VAR

VAR_OUTPUT
  SEL_OUT     : INT := 0;
  GRP1_OUT    : BOOL := 0;
  GRP2_OUT    : BOOL := 0;
  GRP3_OUT    : BOOL := 0;
END_VAR

VAR
  SELECT      : INT;
  MAX         : INT;
END_VAR

BEGIN
  SELECT := SIG_SEL;
  MAX := 0;
  IF SELECT < 0 THEN           //make it positive
    SELECT := -SELECT;
  END_IF;
  IF SELECT > MAX THEN       //limit to MAX
    SELECT := MAX;
  END_IF;
  SEL_OUT := SELECT;

```

- PASCAL-type high-level language
- Optimized for programming programmable controllers
- With PLCopen Base Level certificate
- For use in SIMATIC S7-300 (recommended for CPU 314 and CPU 312C or higher), S7-400, C7 and WinAC



Technical specifications

Engineering Tool	S7-SCL
Current version	V5.3
Software class	A
Application areas	
Can be used for	Text-based high-level language programming of simple and complex calculations, CASE, loop, jump, and comparison functions
Marketing message	Programming of algorithms and calculations made easy!
Advantages	<ul style="list-style-type: none"> • Clear and easy-to-read programs • Functional, module-based programming • CASE instruction replaces a large number of jump and comparison functions • Easily understood by PLC programmers, as the programming philosophy of LAD/FBD/STL is retained • Easy switchover to PLC programming for PC programmers • Exchangeability (porting) of subroutines in accordance with IEC 61131-3 • Less time required for engineering compared to LAD/FBD/STL: Up to 20% for simple programs; at least 50% for demanding program structures
Sectors	<ul style="list-style-type: none"> • Labeling machines • Chemical plants (e.g. oxygen extraction, evaluation of measured values) • Rubber and plastics machines • Woodworking machines • Storage and logistics systems • Paper and printing machinery • Punching and cutting machines • Water industry • Coilers
Target systems	
Can be used in	S7-300 (CPU 313 or higher and CPU 312C or higher recommended) S7-400 C7 (C7-626 or higher recommended) WinAC
System prerequisites	
Operating system	Windows XP Professional Windows 7 Ultimate/Professional (S7-SCL V5.3 SP5 and higher)
Required hard drive memory in the PG/PC	50 MB
Required software	STEP 7 V5.4 or higher

Software for SIMATIC controllers

STEP 7 programming software

S7-SCL

Technical specifications (continued)		Ordering data	Order No.
Engineering Tool	S7-SCL	SIMATIC S7 SCL, Version 5.3	
Properties		Task: High-level language programming Target system: SIMATIC S7-300 (CPU 314 and higher), SIMATIC S7-400, SIMATIC C7, SIMATIC WinAC Requirement: STEP 7 V5.4 SP5 and higher Type of delivery: on CD; German, English, French, Spanish, Italian; incl. authorization diskette, with electronic documentation	
Monitoring tags	Yes	Floating License	6ES7 811-1CC05-0YA5
Controlling tags	Yes	Software Update Service (requires current software version) ¹⁾	6ES7 811-1CA01-0YX2
Single-step processing	Yes	Upgrade floating to V5.3	6ES7 811-1CC05-0YE5
Integration in CFC	Yes	SIMATIC Manual Collection	6ES7 998-8XC01-8YE0
Program runtimes		Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	
with S7-300 (typical)	Similar to LAD/FBD/STL	SIMATIC Manual Collection update service for 1 year	6ES7 998-8XC01-8YE2
with S7-400 (typical)	Similar to LAD/FBD/STL	Current "Manual Collection" DVD and the three subsequent updates	
Diagnostics			
Integration of diagnostic data in ProAgent	-		
Integration of diagnostic data in ProTool/Pro	-		
Integration of diagnostic data in WinCC	-		
Supported standards			
IEC 61131-3	PLCopen certification • Base level ST available • Reusability Level ST available		
Available versions/licenses			
Floating license	CD-ROM with • Tool • Electronic manual • Getting Started guide • Examples License on USB stick Certificate of License Product information		
Upgrade (floating license)	CD-ROM with • Tool • Electronic manual • Getting Started guide • Examples License on USB stick Certificate of License Product information		
Software Update Service (SUS)			
Also a component part of			
STEP 7 Professional	Yes		
S7 Trainer Package	Yes		
PCS 7	Yes		
D7-SYS	-		

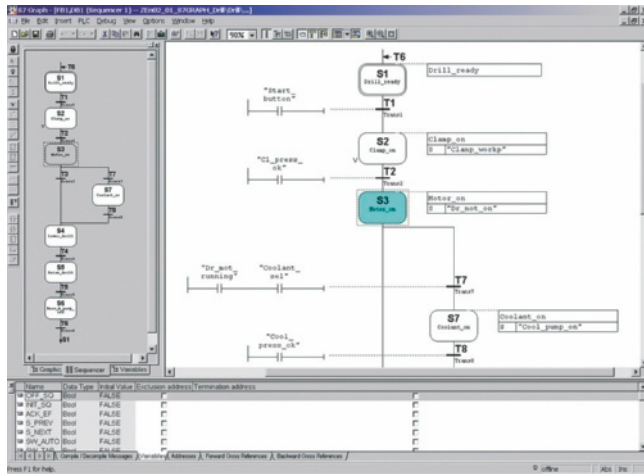
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

STEP 7 programming software

S7-GRAPH

Overview



- For configuring and programming sequential processes using sequencers
- Standardized representation to DIN EN 1131-3
- Clearly comprehensible program thanks to structuring of the process into separate steps
- With extensive diagnostics functions, integrated into the SIMATIC diagnostics concept
- With PLCopen Base Level certificate
- For use in SIMATIC S7-300 (recommended for CPU 315 and CPU 312C or higher), S7-400, C7 and WinAC



Technical specifications

Engineering Tool	S7-GRAPH
Current version	V5.3
Software class	A
Application areas	
Can be used for	Graphical programming of sequential controllers and sequencers
Marketing message	Fast, elegant way to program sequential processes easily and transparently!
Advantages	<ul style="list-style-type: none"> • Can be used to optimum effect even during the design phase • Less configuration effort thanks to graphical structuring and programming • Quick and easy familiarization • Precise fault localization thanks to integrated diagnostics in combination with ProAgent for ProTool/Pro and WinCC • Less time required for engineering compared to LAD/FBD/STL: approx. 40 to 70%
Sectors	<ul style="list-style-type: none"> • Automotive industry (e.g. body-in-white, final assembly) • Electrical equipment manufacture • Rubber and plastics machines • Pick-and-place machines • Woodworking machines • Metalworking machines • Paper and printing machinery • Testing machines • Rolling mills • Coilers • Leisure and entertainment facilities
Target systems	
Can be used in	S7-300 (CPU 314 or higher and CPU 312C or higher recommended) S7-400 C7 (C7-626 or higher recommended) WinAC
System prerequisites	
Operating system	Windows XP Professional Windows 7 Professional Windows 7 Ultimate
Required hard drive memory in the PG/PC	50 MB
Required software	STEP 7 V5.4 with SP4 or SP5 or STEP 7 V5.5 with or without SP1

Software for SIMATIC controllers

STEP 7 programming software

S7-GRAPH

Technical specifications (continued)		Ordering data	Order No.
Engineering Tool	S7-GRAPH	SIMATIC S7 GRAPH, Version 5.3	
Properties		Task: Configuration and programming of sequences	
Monitoring tags	Yes	Target system: SIMATIC S7-300, SIMATIC S7-400, SIMATIC C7, SIMATIC WinAC	
Controlling tags	Yes	Requirement: STEP 7 V5.4 or higher with SP4/SP5 or STEP 7 V5.5 with or without SP1	
Single-step processing	Yes	Type of delivery: on CD; German, English, French, Spanish, Italian; including license key on USB stick, with electronic documentation	
Integration in CFC	-	Floating License	6ES7 811-0CC06-0YA5
Program runtimes		Software Update Service (requires current software version) ¹⁾	6ES7 811-0CA01-0YX2
with S7-300 (typical)	3 ms per block + 1 ms per active step	Floating license upgrade to V5.3	6ES7 811-0CC06-0YE5
with S7-400 (typical)	0.4 ms per block + 0.06 ms per active step	SIMATIC Manual Collection	6ES7 998-8XC01-8YE0
Diagnostics		Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	
Integration of diagnostic data in ProAgent	Yes	SIMATIC Manual Collection update service for 1 year	6ES7 998-8XC01-8YE2
Integration of diagnostic data in ProTool/Pro	Via ProAgent	Current "Manual Collection" DVD and the three subsequent updates	
Integration of diagnostic data in WinCC	Via ProAgent		
Supported standards			
IEC 61131-3	PLCopen certification • Base Level SFC available		
Status of PLCopen activities	-		
Available versions/licenses			
Floating license	CD-ROM with • Tool • Electronic manual • Getting Started guide • Examples License key on USB stick Certificate of License Product information		
Upgrade (floating license)	CD-ROM with • Tool • Electronic manual • Getting Started guide • Examples License key on USB stick Certificate of License Product information		
Software Update Service (SUS)			
Also a component part of			
STEP 7 Professional	Yes		
S7 Trainer Package	Yes		
PCS 7	-		
D7-SYS	-		

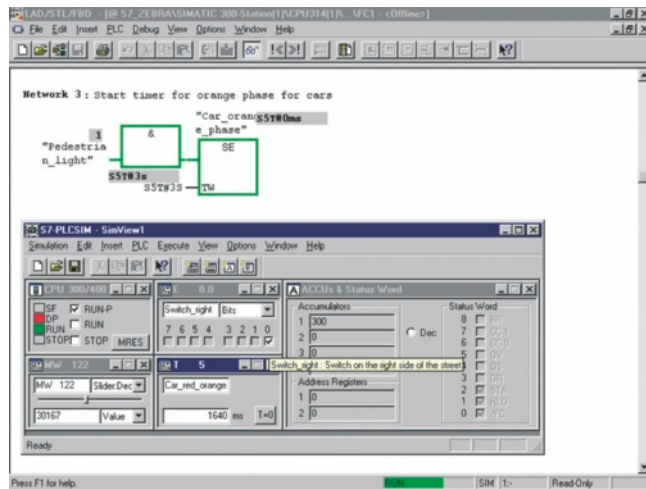
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

STEP 7 programming software

S7-PLCSIM

Overview



- For functional testing of the generated SIMATIC S7 user blocks on the PG/PC, independent of the availability of the target hardware
- To transfer detection and elimination of program faults to an early phase of program development
- Permits accelerated, cost-reduced initial commissioning, and an increase in program quality
- Can be used for LAD, FBD, STL, S7-GRAPH, S7-HiGraph, S7-SCL, CFC, S7-PDIAG, WinCC (local installation)

Technical specifications

Engineering Tool	S7-PLCSIM
Type of license	Floating license
Software class	A
Current version	V5.4
Target system (recommended)	SIMATIC S7-300 SIMATIC S7-400 SIMATIC C7
Operating system	Windows XP Professional Windows 7 Professional Windows 7 Ultimate
Required software packages	STEP 7 V5.4 with SP4 or SP5 or STEP 7 V5.5 with or without SP1
Disk space required in PG/PC	5 MB

Ordering data

Order No.

S7-PLCSIM, Version 5.4

Task:

Function testing of SIMATIC S7 application blocks on PG/PC

Target system:

SIMATIC S7-300, SIMATIC S7-400, SIMATIC C7

Requirement:

STEP 7 V5.4 or higher incl. SP4/SP5 or STEP 7 V5.5 with or without SP1

Type of delivery:

on CD; English, German, French, Spanish, Italian; license key on USB stick, with electronic documentation

Floating License

6ES7 841-0CC05-0YA5

Software Update Service

(requires current software version)¹⁾

6ES7 841-0CA01-0YX2

Floating license upgrade to V5.4

6ES7 841-0CC05-0YE5

SIMATIC Manual Collection

6ES7 998-8XC01-8YE0

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

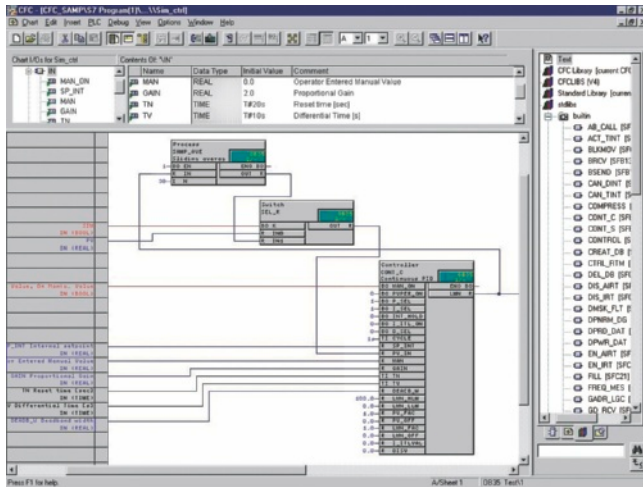
SIMATIC Manual Collection update service for 1 year

6ES7 998-8XC01-8YE2

Current "Manual Collection" DVD and the three subsequent updates

¹⁾ For more information on the software update service, see page 11/3.

Overview



- For creating automation programs by drawing a function chart
- With extensive libraries of prefabricated function blocks to which function blocks created by the user can be added
- Reduced costs and fewer mistakes by simply interconnecting read-to-use function blocks
- Optimized integration in the world of automation, for example, through guaranteed compatibility with all STEP 7 tools
- Can be used for SIMATIC S7-300 (recommended for CPU 316 or CPU 314C or higher), SIMATIC S7-400, SIMATIC WinAC and D7-SYS

Technical specifications

EngineeringTool	CFC
Current version	V8.0
Software class	A
Application areas	
Can be used for	Graphical creation, interconnection and parameterization of (preconfigured) blocks and functions
Marketing message	Simply interconnect and configure instead of programming!
Advantages	<ul style="list-style-type: none"> • Can be used to optimum effect even during the design phase • Reduced configuration effort thanks to graphical interconnection • High degree of reusability of diagrams that have already been created • Quick and easy familiarization • Quick and transparent interconnection of ready-made functions • Technological creation of the program as a whole • Clear representation of control loop structures • Short commissioning time • High plant availability • Less time required for engineering compared to LAD/FBD/STL: up to 50%
Sectors	<ul style="list-style-type: none"> • Automotive industry (e.g. thermostats, tire production processes) • Chemicals • Power engineering and supply • Rubber and plastics machines • Metalworking machines • Food and beverage machines • Petrochemicals • Rolling mills • Water industry • Coilers
Target systems	
Can be used in	S7-300 S7-400 F/H systems WinAC
System prerequisites	
Operating system	MS Windows XP Professional SP3 MS Windows Server 2003 SP2 Standard MS Windows Server 2003 R2 SP2 MS Windows 7 Ultimate 32 Bit MS Windows 7 Ultimate 64 Bit MS Windows Server 2008 32 Bit MS Windows Server 2008 R2 64 Bit MS Windows 7 Professional 32 Bit MS Windows 7 Professional 64 Bit MS Windows Vista 32 Bit Ultimate MS Windows Vista 32 Bit Business
Required hard drive memory in the PG/PC	approx. 80 MB
Required software	STEP 7 V5.4 SP5 or higher

Software for SIMATIC controllers

Options for programming and design

CFC

Technical specifications (continued)

EngineeringTool	CFC
Properties	
Monitoring tags	Yes
Controlling tags	Yes
Single-step processing	-
Integration in CFC	Yes
Program runtimes	
with S7-300 (typical)	Depending on the interconnected blocks
with S7-400 (typical)	Depending on the interconnected blocks
Diagnostics	
Integration of diagnostic data in Pro-Agent	-
Integration of diagnostic data in Pro-Tool/Pro	-
Integration of diagnostic data in WinCC	-
Supported standards	
IEC 61131-3	based on the IEC standard
Status of PLCopen activities	-
Available versions/licenses	
Floating license (S7-HiGraph) or single license (CFC)	CD-ROM with <ul style="list-style-type: none"> • Tool • Electronic manual • Getting Started guide • Examples License Key Disk Terms and Conditions Certificate of License
Floating license (S7-HiGraph) or single license (CFC)	CD-ROM with <ul style="list-style-type: none"> • Tool • Electronic manual • Getting Started guide • Examples License Key Disk Emergency Key Disk Certificate of License Terms and Conditions Product information
Software Update Service (SUS)	
Also a component part of	
STEP 7 Professional	-
S7 Trainer Package	-
PCS 7	Yes
D7-SYS	Yes

Ordering data

Order No.

SIMATIC CFC, Version 8.0 Task: Graphic configuring and programming of automation applications in the form of technology-oriented diagrams Target system: SIMATIC S7-300/400, SIMATIC WinAC, D7-SYS Requirements: STEP 7 V5.3 and higher Delivery form: Engineering software and electronic documentation on CD-ROM, License Key on USB stick, Certificate of License Floating License Floating License upgrade from V7.1 to V8.0 Software Update Service (requires current software version) ¹⁾ Software Update Service for multiple orders (requires current software version); the delivery items are combined. For several contracts, only 1 package (1 data medium set and the corresponding number of licenses) will be supplied. Can be ordered with 5 or more contracts ¹⁾ The delivery items to be combined must be ordered as one item.	6ES7 658-1EX08-0YA5 6ES7 658-1EX08-0YE5 6ES7 658-1EX00-2YL8 6ES7 658-1EX00-2YM8
SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	6ES7 998-8XC01-8YE0
SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates	6ES7 998-8XC01-8YE2

¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for programming and design

S7 Distributed Safety

Overview

- For creating safety-oriented automation applications with SIMATIC S7 in LAD or FBD (STEP 7 required)
- Implementation of safety functions by making simple connections between function blocks
- With preconfigured function block library
- User-defined blocks can be created
- Optimum embedding in the automation world due to guaranteed integration with STEP 7 tools
- Scope of supply:
 - Distributed Safety editor
 - Code generator
 - Debugger
 - Libraries of standard blocks

Ordering data

Order No.

S7 Distributed Safety V5.4 programming tool

Task:

Configuration software for configuring fail-safe user programs for SIMATIC S7-300F, S7-400F, WinAC RTX F, ET 200S, ET 200M, ET 200iSP, ET 200pro, ET 200eco

Requirement:

STEP 7 V5.3 SP3 and higher

Floating license for 1 user

6ES7 833-1FC02-0YA5

Floating license for 1 user, license key download without software or documentation¹⁾; email address required for delivery

6ES7 833-1FC02-0YH5

S7 Distributed Safety upgrade

From V5.x to V5.4;

Floating license for 1 user

6ES7 833-1FC02-0YE5

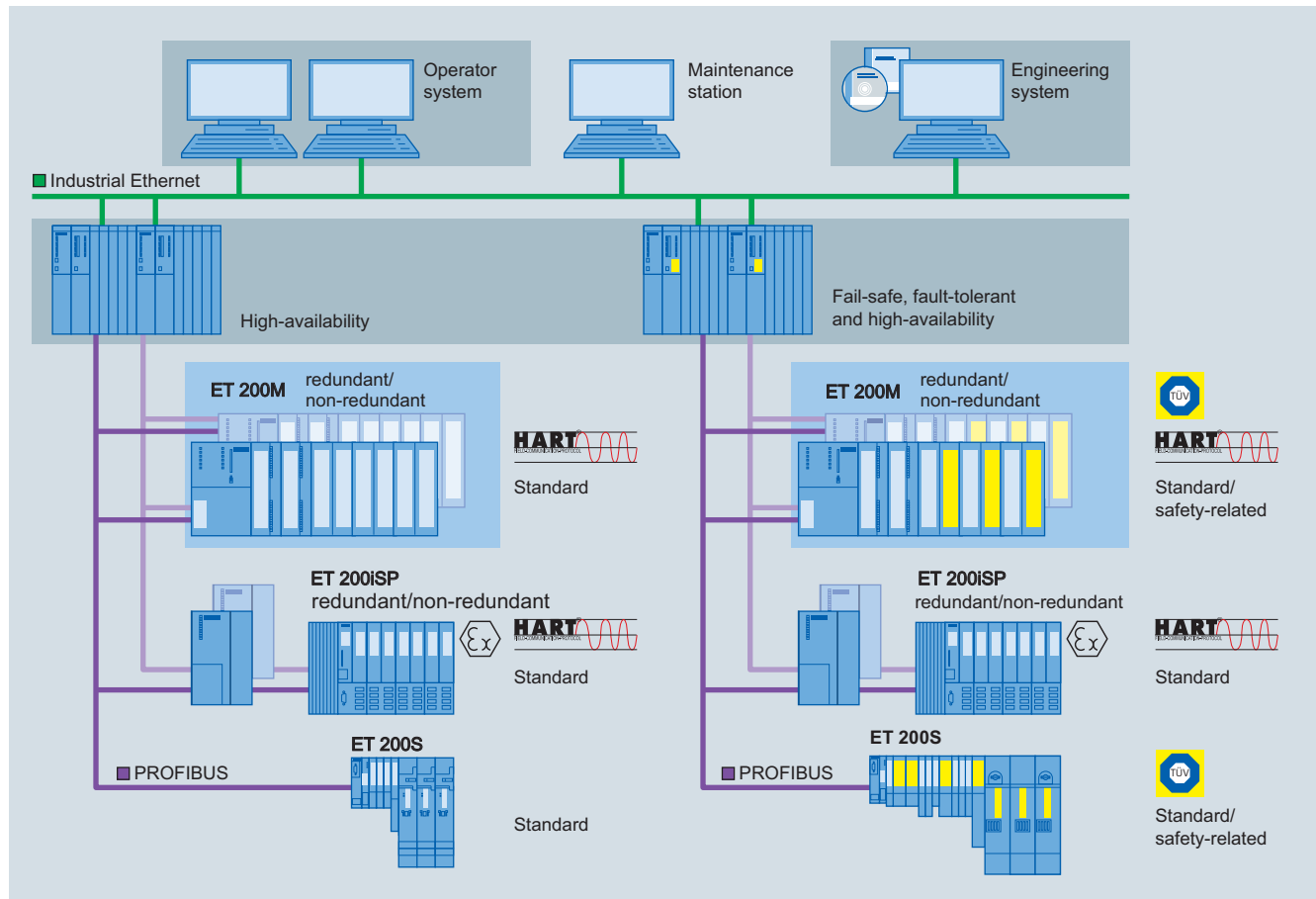
¹⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>

Software for SIMATIC controllers

Options for programming and design

S7 F/FH Systems Introduction

Overview



Common engineering system for basic process control system and safety instrumented system

The process industry frequently features complex technological sequences with high safety demands, and faults and failures in the process automation could have fatal consequences for personnel, machines, plants and the environment. Therefore process safety is of particular significance. The safety technology used must reliably detect errors in the process and also its own internal errors, and automatically set the plant/application to a safe state if an error is detected.

S7 F/FH Systems is the comprehensive range of products and services from Siemens for safe, fault-tolerant applications in the process industry. This is characterized by:

- Safe communication via PROFIBUS with PROFIsafe
- Safe communication also via PROFIBUS PA with PROFIsafe
- ET 200 distributed I/O systems with safety-related I/O modules
- User-friendly process visualization, including safety-relevant fault messages, via the optional operator system
- Engineering system with S7 F Systems software package and SIMATIC Safety Matrix

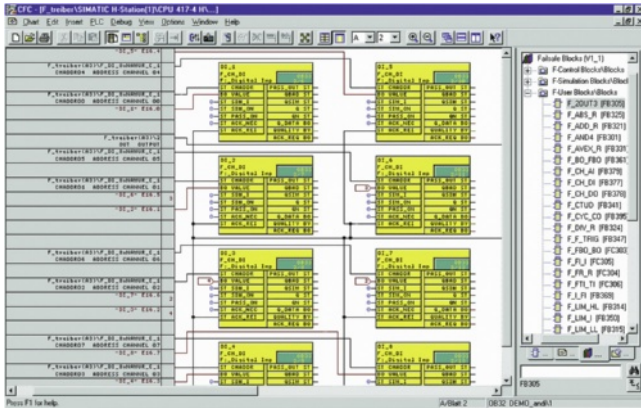
- AS 412F/FH, AS 414F/FH and AS 417F/FH safety-related automation systems
- The safety-related automation systems of the S7 F/FH-System are based on the hardware of the CPU 412H, CPU 414H or CPU 417H automation systems that are extended with the S7 F Systems software package to include safety functions. All F/FH systems listed are TÜV-certified and comply with the safety requirements up to SIL 3 according to IEC 61508. There are two design variants:
- Single-channel (with one CPU, safety-related)
 - High-availability (with redundant CPUs, safety-related and fault-tolerant)

Software for SIMATIC controllers

Options for programming and design

S7 F/FH Systems
S7 F Systems

Overview



The S7 F Systems engineering tool integrated in the SIMATIC Manager can be used to configure an S7 F/FH System. With this tool you can:

- Parameterize CPU and F-signal modules
- Create safety-related applications in the CFC.

Predefined, TÜV-approved blocks are available for this purpose. The safety-related blocks save the user having to perform redundant programming for detecting and reacting to errors.

Ordering data

Order No.

S7 F Systems RT license

6ES7 833-1CC00-6YX0

For processing safety-related application programs, for one AS 412F/FH, AS 414F/FH or AS 417F/FH

S7 F Systems V6.1

6ES7 833-1CC02-0YA5

Programming and configuring environment for creating and operating safety-related STEP 7 programs for an S7 400H-based target system, floating license for 1 user, executable under Windows XP Prof SP2/SP3, Windows Server 2003 SP2, Windows 7, Windows Server 2008 R2

2 languages (German, English)

Type of supply:

Certificate of license as well as software and electronic documentation on CD

S7 F systems upgrade from V5.x/V6.0 to V6.1

6ES7 833-1CC02-0YE5

2 languages (German, English), floating license for 1 user

Type of supply:

Certificate of license as well as software and electronic documentation on CD

Note:

In the case of an S7 F Systems Upgrade from V5.x to V6.1, the type of S7 F Systems license changes from single license to floating license.

Software for SIMATIC controllers

Options for programming and design

S7 F/H Systems SIMATIC Safety Matrix

Overview

Input Tag	Func	Lim/Trp	EngL/Nt	Cause Description	Num	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PS_100		FALSE		Feed Pump High Pressure Switch	1	N													
LSH_100		TRUE		Tank_100 Level switch high	2	S	S	R											
LSL_200		TRUE		Hopper_200 Level switch Low	3	N	N												
PSH_200		TRUE		Hopper_200 High Pressure	4	N	N												
PT_100		H 35.00	PSIG	Feed pressure	5	S	S	S											
LT_100		H 50.00	Feet	Tank Level	6	S	S	N											
PT_101		H 25.00		Tank Pressure	7														
PT_102	Vote	D 3.0	in_H20	Tank Pressure	7														
PT_103																			
LT_200		H 50.00	ft	Hopper Level	8														
TS_101		FALSE																	
TS_102	AND	FALSE		Tank_100 High Temperature switch	9														
TS_103		FALSE																	

The SIMATIC Safety Matrix which can be used in addition to the CFC is an innovative safety lifecycle tool from Siemens that can be used not only for user-friendly configuration of safety applications, but also for their operation and service. The tool, which is based on the proven principle of a cause & effect matrix, is ideally suited to processes where defined statuses require specific safety reactions.

The SIMATIC Safety Matrix not only means that programming of the safety logic is significantly simpler and more convenient, but also much faster than in the conventional manner. During the risk analysis of a plant, the configuration engineer can assign exactly defined reactions (effects) to events (causes) which may occur during a process.

Ordering data

Order No.

SIMATIC Safety Matrix Tool V6.2

Creation, configuration, compilation, loading and online monitoring of the Safety Matrix in a SIMATIC PCS 7 environment

Including SIMATIC Safety Matrix Viewer for SIMATIC PCS 7, for operation and monitoring of the Safety Matrix in a SIMATIC PCS 7 environment with several operator control levels

1 language (English), executes with Windows XP Professional, Windows 7, Windows Server 2008 R2

Type of supply: Certificate of License and authorization diskette for Safety Matrix Tool and Safety Matrix Viewer; software and electronic documentation on CD

Floating License for 1 installation

6ES7 833-1SM02-0YA5

Floating License upgrade from V5.x/V6.x to V6.2

6ES7 833-1SM02-0YE5

SIMATIC Safety Matrix Editor V6.2

Creation and checking of the Safety Matrix logic on an external computer without a SIMATIC PCS 7 or STEP 7 environment

1 language (English), executes with Windows 2000 Professional or Windows XP Professional, Windows 7, Windows Server 2008 R2, single license for 1 installation

Type of supply: Certificate of License and authorization diskette; software and electronic documentation on CD

6ES7 833-1SM42-0YA5

SIMATIC Safety Matrix Viewer V6.2 for SIMATIC PCS 7

Operation and monitoring of the Safety Matrix in the SIMATIC PCS 7 environment with several operating levels

Bilingual (English/German), runs on Windows 2000 Professional or Windows XP Professional, Windows 2003 Server, Windows 7, Windows Server 2008 R2

Type of supply: Certificate of License and authorization diskette; software and electronic documentation on CD

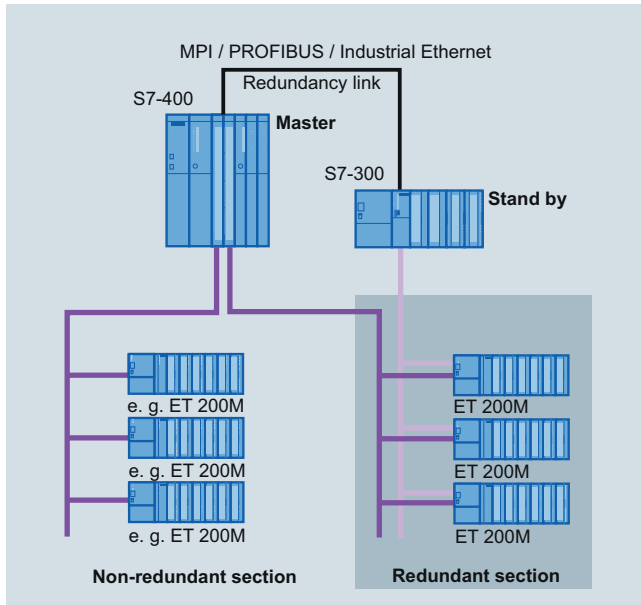
Floating License for 1 installation

6ES7 833-1SM62-0YA5

Floating License upgrade from V6.x to V6.2

6ES7 833-1SM62-0YE5

Overview



- Software package for assembling fault-tolerant control systems based on software
- Designed for control systems with single-channel distributed I/O
- For use in applications with low demands on changeover speed, such as the control of hydroelectric power plants, cooling circuits, traffic flows, level control, measured data acquisition
- Inexpensive thanks to the use of standard S7-300 and S7-400 components
- I/O linking with PROFIBUS DP in redundant configuration
- Optional control via WinCC operator station

Technical specifications

Hardware requirements	
CPU	S7-300: CPU 313C-2 DP, 314C-2 DP, 315-2 DP, 316-2 DP, 318-2 DP S7-400: all CPUs
Redundancy link of the CPUs	MPI, PROFIBUS, Industrial Ethernet; existing connections can also be used.
Suitable modules for ET 200M	IM 153-2; all DI/O, AI/O for ET 200M; FM 350-1 counter module CP 341
Software requirements	
Configuring/programming	STEP 7 V4.0
Communication configuration for redundant PROFIBUS DP	NCM S7 for PROFIBUS

Ordering data

Order No.

Program package software redundancy V1.2

Task:

Configuring a redundant control.
Target system: SIMATIC S7-300,
S7-400

Requirement:

STEP 7 V5.2, NCM S7 for
PROFIBUS

Delivery package:

incl. electronic documentation
(English, German, French, Spanish,
Italian), 4 application examples and
faceplate for WinCC on CD-ROM

Single license (for 2 CPUs)

6ES7 862-0AC01-0YA0

Single license, without software and
documentation

6ES7 862-0AC01-0YA1

SIMATIC Manual Collection

6ES7 998-8XC01-8YE0

Electronic manuals on DVD,
multilingual: LOGO!, SIMADYN,
SIMATIC bus components,
SIMATIC C7,
SIMATIC distributed I/O,
SIMATIC HMI,
SIMATIC Sensors,
SIMATIC NET,
SIMATIC PC Based Automation,
SIMATIC PCS 7,
SIMATIC PG/PC,
SIMATIC S7,
SIMATIC Software,
SIMATIC TDC

SIMATIC Manual Collection update service for 1 year

6ES7 998-8XC01-8YE2

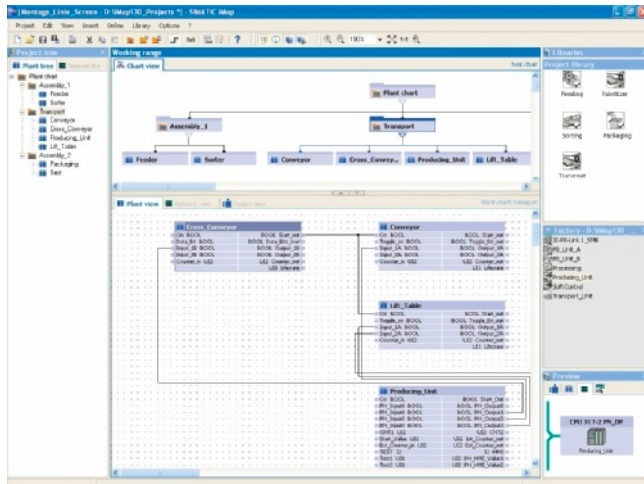
Current "Manual Collection" DVD
and the three subsequent updates

Software for SIMATIC controllers

Options for programming and design

SIMATIC iMap

Overview



- Component-based software tool for configuring the communication in distributed automation solutions
- For easy graphical configuration of the communication between subsystems and machine-to-machine communication in the production line
- Based on the PROFINET standard
- Open for PROFINET devices from various manufacturers on Industrial Ethernet
- Runs under Windows XP Professional and Windows 7 Ultimate/Professional

Technical specifications

Engineering tool	SIMATIC iMap
Current version	V3.0
Software class	A
Application areas	
Keyword	SIMATIC iMap is an engineering tool for configuring communication between automation and field devices in distributed automation solutions.
Marketing message	"Time and cost savings in modular machine and plant construction with Component based Automation." "Modularization and machine-to-machine communication along the production line."
Advantages	<ul style="list-style-type: none"> • Open component-based engineering tool to the PROFINET standard. • Simple communication between intelligent automation and field devices on PROFIBUS DP and on Ethernet. • Graphical configuration of communication on PROFIBUS DP and on Ethernet • Extremely high reusability of software components (technology modules) • Graphical structuring of the plant using "chart-in-chart" function • Convenient navigation through the project tree • Easy creation and structuring of technology libraries • PROFIBUS and Ethernet in the overview of the network view • Fast start-up thanks to downloading and testing directly on Ethernet (also of PROFIBUS slaves) • Online display of values of the technology modules on the interfaces and in the variable table • Diagnosis of communication in the diagnostics window

Engineering tool	SIMATIC iMap
Sectors	
	<ul style="list-style-type: none"> • Automotive industry (especially in assembly, conveyor systems and in the paint shop) • Complex food and packaging machines • Conveyor systems based on PROFIBUS DP • Production lines with several interlinked machines
Target systems	
	<ul style="list-style-type: none"> • SIMATIC S7 CPU 31x-2 PN/DP and SIMATIC S7 CPU 319-3 PN/DP (with integrated PROFINET interface. This can be used as a proxy function for the devices of a complete PROFIBUS segment, one line only) • SIMATIC WinAC PN (can be used as a proxy function for the devices of a complete PROFIBUS segment, one line only) • SIMATIC NET IE/PB Link (can be used as a proxy function for the devices of a complete PROFIBUS segment) • SIMATIC NET CP 343-1 and CP 343-1 Advanced (for connecting SIMATIC S7-300 to Ethernet), CP443-1 Advanced (for connecting SIMATIC S7-400 to Ethernet) • Distributed I/O stations with separate CPU (all intelligent field devices on PROFIBUS such as SIMATIC CPU 313C-2DP, CPU 314C-2DP, CPU 315-2DP, CPU 316-2DP, ET 200 IM 151 CPU, ET 200S BM 147 CPU), • PROFINET CBA OPC Server (for access from PC applications to data in PROFINET devices) • Devices on Industrial Ethernet based on the PROFINET CBA standard • SIMATIC OPs (within the components) • SIMATIC ProTool/Pro, WinCC or any other visualization system with OPC client function

Software for SIMATIC controllers

Options for programming and design

SIMATIC iMap

Technical specifications (continued)		Ordering data	Order No.
Engineering tool	SIMATIC iMap	SIMATIC iMap V3.0	
System prerequisites		Target system: CPU 31x-2 PN/DP, CPU 319-3 PN/DP, SIMATIC WinAC PN, SIMATIC NET IE/PB Link, SIMATIC NET CP 343-1, SIMATIC NET CP 343-1 Advanced, SIMATIC NET CP 443-1 Advanced, distributed I/O devices with own CPU, PROFINET CBA OPC server, devices on the Industrial Ethernet based on the PROFINET CBA stan- dard, SIMATIC OPs, SIMATIC ProTool/Pro	
Operating system	Windows XP Prof. with Service Pack 2 or Windows 7 Ultimate/Professional; PC administration rights are required for installation	Requirements: Windows XP Prof. with Service Pack 2 or Windows 7 Ultimate/Professional; on PG or PC with Pentium processor, min. 1 GHz; STEP 7 V5.3 or higher with Service Pack 3, PN OPC Server V6.3 or higher	
PG/PC hardware	Pentium processor, 1 GHz or higher	Type of delivery: German, English, with electronic documentation	
Recommended expansion of main memory in PG/PC	RAM: 512 MB or more	Floating License	6ES7 820-0CC04-0YA5
Hard disk space required in PG/PC	Approx. 200 MB	Software Update Service (requires current software version) ¹⁾	6ES7 820-0CC01-0YX2
Software required	<ul style="list-style-type: none"> • STEP 7 V5.3 Service Pack 3 or higher • PN OPC-Server V6.3 or higher The following software must be installed before iMap (included in the iMap package): <ul style="list-style-type: none"> • MS Internet Explorer V6.0 Service Pack 1 and higher • Adobe Acrobat Reader V5.0 	Upgrade to V3.0, floating license	6ES7 820-0CC04-0YE5
Delivery format			
Languages	English, German, French, Italian and Spanish		
Single License (SL)	Yes		
Upgrade License (UL)	Yes, from V2.0 to V3.0		
Paper manuals	Electronically on CD		
Authorization/licenses			
Authorization	Yes		
Single License (SL)	Yes		
Upgrade License (UL)	Yes		
Software Update Service	Yes		
Unlock Copy License	No		

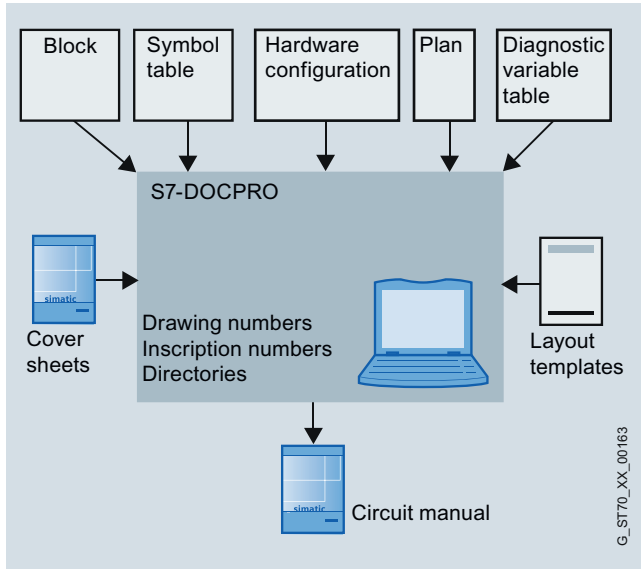
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for programming and design

DOCPRO

Overview



- For creating and managing plant documentation
- Permits structuring of project data, the preparation in the form of wiring manuals, and the printout in a unified print image.
- For use in SIMATIC S7-300, S7-400 and C7

Technical specifications

Engineering Tool	DOCPRO
Type of license	Floating license
Software class	A
Current version	V5.4
Target system (recommended)	SIMATIC S7-300/400 SIMATIC C7
Operating system	Windows XP Professional Windows 7 Ultimate/Professional from DOCPRO V5.4 SP1
Required software packages	STEP 7, V5.4 and higher; for operation under Windows 7 STEP 7, V5.5 and higher
Disk space required in PG/PC	5 MB

Ordering data

Order No.

DOCPRO, Version 5.4

Task:
Creation of circuit manuals for plant documentation management
Target system:
SIMATIC S7-300, SIMATIC S7-400, SIMATIC C7
Requirement:
from STEP 7 V5.4
Delivery package:
on CD; German, English, French, Spanish, Italian; incl. authorization diskette, with electronic documentation

Floating License

6ES7 803-0CC03-0YA5

Software Update Service (requires current software version)¹⁾

6ES7 803-0CA01-0YX2

Floating license upgrade to V5.4

6ES7 803-0CC03-0YE5

SIMATIC Manual Collection

6ES7 998-8XC01-8YE0

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

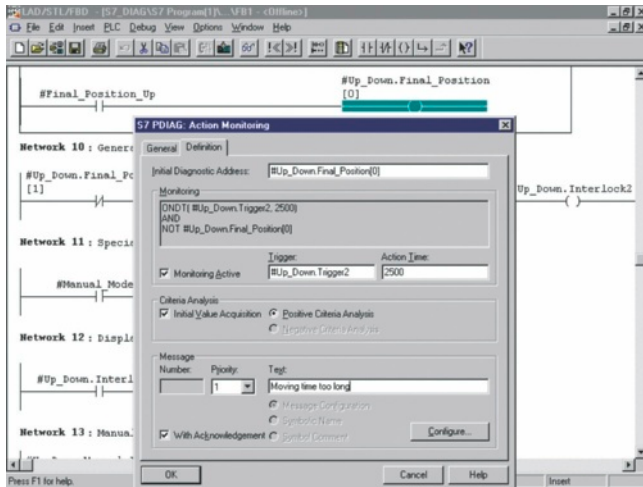
SIMATIC Manual Collection update service for 1 year

6ES7 998-8XC01-8YE2

Current "Manual Collection" DVD and the three subsequent updates

¹⁾ For more information on the software update service, see page 11/3.

Overview



- For configuration of process diagnostics with SIMATIC S7
- Increases the availability of machines and production plants and supports with fault analysis and elimination on site
- For use on the SIMATIC S7-300, S7-400

Technical specifications

Engineering Tool	S7-PDIAG
Type of license	Floating license
Software class	A
Current version	V5.3
Target system (recommended)	SIMATIC S7-300 (CPU 314 or higher) SIMATIC S7-400
Operating system	Windows XP Professional Windows 7 Ultimate/Professional
Required software packages	STEP 7 V5.4 or higher
Disk space required in PG/PC	6 MB

Ordering data

Order No.

S7-PDIAG, Version 5.3

Task:
Configuring of process diagnostics for LAD/FBD/STL

Target system:
SIMATIC S7-300 (CPU 314 and higher); SIMATIC S7-400

Requirement:
STEP 7 V5.4 or higher

Type of delivery:
on CD; German, English, French, Spanish, Italian; incl. authorization diskette, with electronic documentation

Floating License

6ES7 840-0CC04-0YA5

Software Update Service (requires current software version)¹⁾

6ES7 840-0CA01-0YX2

Upgrade to V5.3

6ES7 840-0CC04-0YE5

SIMATIC Manual Collection

6ES7 998-8XC01-8YE0

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

SIMATIC Manual Collection update service for 1 year

6ES7 998-8XC01-8YE2

Current "Manual Collection" DVD and the three subsequent updates

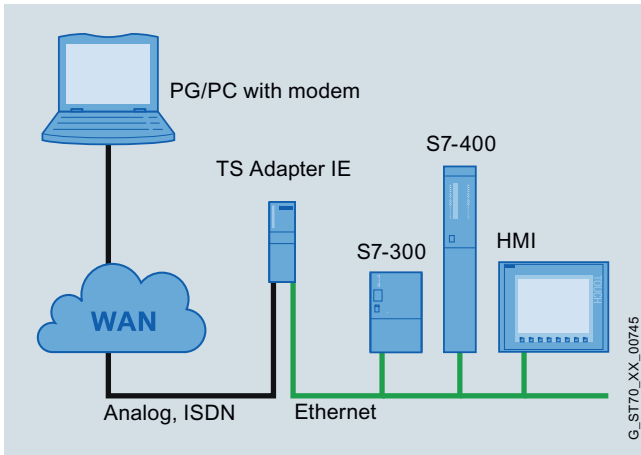
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

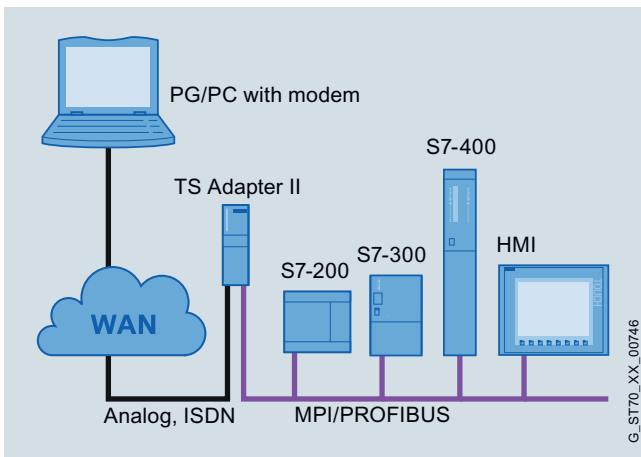
Options for diagnostics and service

TeleService

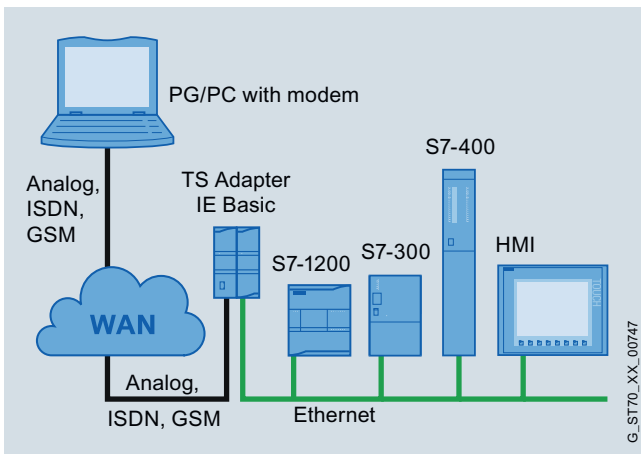
Overview



Teleservice with TS Adapter IE



Teleservice with TS Adapter II



Teleservice with TS Adapter IE Basic

- For performing remote maintenance over the telephone network:
A PG/PC with an Engineering Tool installed, e.g. STEP 7, can access automation components (e.g. S7 CPUs) over the telephone network that are connected to the appropriate adapters over Industrial Ethernet or PROFIBUS.
- Comprising the TeleService software and different adapters:
 - TS Adapter II for connection to PPI, MPI or PROFIBUS DP
 - TS Adapter IE or TS Adapter IE Basic for connection to Industrial Ethernet
- Additional functions with TS Adapter II:
 - Establishing a connection from/to remote plants, e.g. for calling up process data from an automation system (PG-to-AS remote coupling).
 - Exchanging data between plants (AS-to-AS remote coupling):
Exchange of process data between two SIMATIC automation systems.
 - Sending a **text message**:
Sending a text message from a SIMATIC automation system via a GSM wireless modem.
- Additional functions with TS Adapter IE:
 - Remote operation of HMI devices:
Access to the HMI device via an Internet browser installed on the adapter
 - Sending e-mails:
Establishing a modem link to a dial-up server (e.g. to an Internet service provider); A SIMATIC CPU can send e-mails over an e-mail server that can be accessed in this manner.
 - Standard routing:
A modem link can be established to an Internet service provider for accessing data on the Internet.

Technical specifications

TS Adapter II	
Dimensions (W x H x D) in mm	125 x 110 x 40
Weight, approx.	250 g
Interfaces	<ul style="list-style-type: none"> to S7/C7 to the PC to an external modem to the analog telephone network to the ISDN telephone network
	RS 485 (up to 12 Mbit/s) USB 1.1 (12 Mbit/s) RS 232 (up to 115 kbaud) RJ12 RJ45
Supply voltage, external or via MPI interface	24 V DC
Current consumption	60 mA (typ.) / 120 mA (max.)
Switch-on current, max.	0.7 A; 8 µs
Degree of protection	IP20
Temperature	
• Operation	± 0 °C to +60 °C
• Storage/transport	-40 °C to +70 °C
TS Adapter IE	
Dimensions (W x H x D) in mm	125 x 110 x 40
Weight, approx.	approx. 370 g
Interfaces	<ul style="list-style-type: none"> Ethernet to an external modem to the analog telephone network to the ISDN telephone network
	RJ45 (10/100 Mbit/s) RS 232 (up to 115 kbaud) RJ12 RJ45
Supply voltage, external or via MPI interface	24 V DC
Current consumption of the TSA-IE ISDN	typ. 170 mA / max. 230 mA
Current consumption of the modem TSA IE	typ. 180 mA / max. 240 mA
Switch-on current, max.	0.7 A; 8 µs
Degree of protection	IP20
Temperature	
• Operation	± 0 °C to +60 °C
• Storage/transport	-40 °C to +70 °C
TS Adapter IE Basic (basic unit)	
Dimensions (W x H x D) in mm	30 x 100 x 75
Weight, approx.	100 g
Interfaces	<ul style="list-style-type: none"> Ethernet to the TS module
	RJ45 (10/100 Mbit/s) Proprietary (can only be used for TS modules)
Supply voltage, external	24 V DC
Current consumption	
• With TS module modem	Typ. 50 mA, max. 80 mA
• with TS module ISDN	Typ. 50 mA, max. 80 mA
• with TS module RS232	Typ. 40 mA, max. 60 mA
• with TS module GSM	Typ. 100 mA, max. 180 mA
Switch-on current, max.	240 mA
Degree of protection	IP20
Temperature	
• Operation	± 0 °C to +60 °C (horizontal installation) ± 0 °C to +40 °C (vertical installation)
• Storage	40 °C to +70 °C

TS module modem	
Dimensions (W x H x D) in mm, approximately	30 x 100 x 75
Weight, approx.	98 g
ITU transmission standards	<ul style="list-style-type: none"> V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34, V.34x, K56flex, V.90, V.92
Other features	<ul style="list-style-type: none"> Error correction and data compression a/b interface Hayes (AT) command set All data formats Dial procedures: dual-tone multiple-frequency (DTMF), pulse dialing
TS module ISDN	
Dimensions (W x H x D) in mm	30 x 100 x 75
Weight, approx.	92 g
Reports	
• D channel protocols	DSS1 (Euro-ISDN), 1TR6
• B channel protocols	V.110 (9600 bit/s, 19200 bit/s, 38400 bit/s) V.120 (64 Kbit/s) X.75 (64 Kbit/s)
Other features	<ul style="list-style-type: none"> Multiple subscriber number (MSN) AT command interpreter
TS module RS232	
Dimensions (W x H x D) in mm	30 x 100 x 75
Weight, approx.	100 g
Operating mode	Full duplex, asynchronous
Signals	TXD, RXD, DSR, CTS, RTS, DTR, DCD
Data transmission rate	2 400 ... 115 200 bit/s
Message frame	8 data bits (LSB first), no parity bit, 1 stop bit
Rule	according to RS232 standard
Connector	D-sub 9-pin, male (PC COMx)
TS module GSM	
Dimensions (W x H x D) in mm	30 x 100 x 75
Weight, approx.	118 g
Transmission rate	
• GPRS Multislot Class 10	
- Up to 2 uplinks	13.4 Kbit/s ... 27 Kbit/s upload gross
- Up to 4 downlinks	40 Kbit/s ... 54 Kbit/s download gross
Interfaces	
• SIM interface	3 V/1.8 V
• Antenna connection	1 x SMA antenna socket (50 Ohm)
Frequency ranges	Quad band: 850, 900, 1800, 1900 MHz
Transmitted output power	2 W at 850 MHz, 900 MHz 1 W at 1800 MHz, 1900 MHz

Software for SIMATIC controllers

Options for diagnostics and service

TeleService

Ordering data	Order No.	Ordering data	Order No.
TeleService, Version 6.1 Task: Remote maintenance by means of wired or radio network Target system: SIMATIC S7-200, SIMATIC S7-300, SIMATIC S7-400, SIMATIC C7 Requirement: TS Adapter (STEP 7 not required) Delivery package: on CD, German, English, French, Spanish, Italian; with electronic documentation Floating License Floating License Upgrade (from each previous version) Software Update Service (requires current software version) ¹⁾	6ES7 842-0CE00-0YE0 6ES7 842-0CE00-0YE4 6ES7 842-0CA01-0YX2	USB cable for parameterizing the TS Adapter II, it can also be used for programming the connected devices. 5 m long	6ES7 901-0AE00-0XA0
TS Adapter II modem With MPI connection and RS 232; 9-pin, male	6ES7 972-0CB35-0XA0	TS Adapter IE Basic Basic unit	6ES7 972-0EB00-0XA0
TS Adapter II ISDN With MPI connection and RS 232; 9-pin, male	6ES7 972-0CC35-0XA0	TS module modem	6ES7 972-0MM00-0XA0
TS Adapter IE modem With Ethernet connection RJ45 (10/100 Mbit/s) and RS 232; 9-pin, male	6ES7 972-0EM00-0XA0	TS module ISDN	6ES7 972-0MD00-0XA0
TS Adapter IE ISDN With Ethernet connection RJ45 (10/100 Mbit/s) and RS 232; 9-pin, male	6ES7 972-0ED00-0XA0	TS module RS232	6ES7 972-0MS00-0XA0
		TS module GSM	6GK7 972-0MG00-0XA0
		S7 mounting rail adapter For mounting the TS Adapter IE Basic on S7-300 mounting rail, width 60 mm	6ES7 972-0SE00-7AA0
		SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	6ES7 998-8XC01-8YE0
		SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates	6ES7 998-8XC01-8YE2

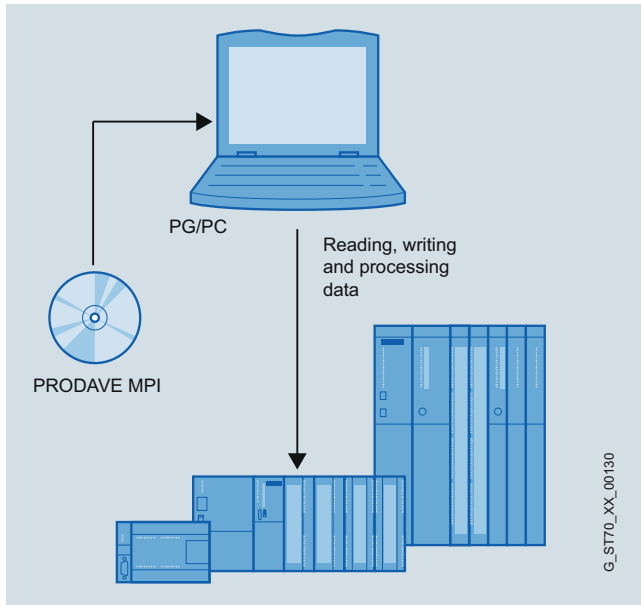
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for diagnostics and service

PRODAVE

Overview



- The toolbox for exchange of process data between SIMATIC S7, SIMATIC C7 and a PG/PC
- For autonomous handling of data traffic over MPI/PPI, PROFIBUS and Industrial Ethernet

Technical specifications

Parameterization software	PRODAVE
Type of license	Simple license, copy license
Software class	A
Current version	V6.2
Target system	SIMATIC S7-200 SIMATIC S7-300 SIMATIC S7-400 SIMATIC C7
Operating system	Windows XP Professional, Windows 7 Professional and Ultimate (32 and 64-bit in each case)
Required software packages	-
Main memory configuration in target system	8 MB on PG/PC
Disk space required in PG/PC	2 MB
Standard FBs	
Required libraries	-

Ordering data

Order No.

PRODAVE MPI/IE V6.2 for Windows XP Professional, Windows 7 Professional and Ultimate (32 and 64-bit in each case)

Task:

Data link between PG/PC and SIMATIC S7/C7 via MPI (S7-200 via PPI) or Industrial Ethernet

Requirements:

Windows XP Professional, Windows 7 Professional and Ultimate (32 and 64-bit in each case); CP 5611, integrated MPI or PC adapter

Delivery package: CD incl. electr. documentation (German, English)

Single license

6ES7 807-4BA03-0YA0

Copy license, without software and documentation

6ES7 807-4BA03-0YA1

PRODAVE MPI Mini V6.0 for Windows 95/98/ME/NT 4.0/2000 Prof./XP Prof.

Task:

Data link between PG/PC and SIMATIC S7/C7 over MPI (S7-200 over PPI); with reduced functional scope)

Requirements:

Windows 95/98/ME/NT 4.0/2000 Prof./XP Prof.; CP 5611, integrated MPI or PC adapter

Delivery package:

CD incl. electr. documentation (German, English)

Single license

6ES7 807-3BA01-0YA0

Copy license, without software and documentation

6ES7 807-3BA01-0YA1

SIMATIC Manual Collection

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

6ES7 998-8XC01-8YE0

SIMATIC Manual Collection update service for 1 year

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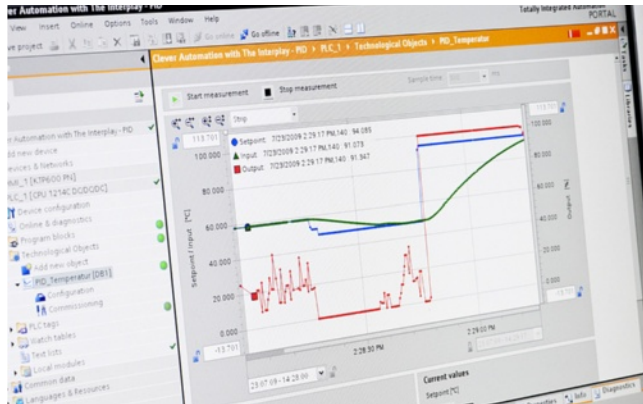
6ES7 998-8XC01-8YE2

Software for SIMATIC controllers

Options for engineering and drive technology

PID Professional V11

Overview



- PID Professional V11 combines the two option packages Modular PID Control and Standard PID Control in the TIA Portal.
- Permits the simple integration of continuous PID controllers, pulse controllers and step controllers in the application program
- Can be used for simple to complex closed-loop control tasks in SIMATIC S7-300 (CPU 313 or higher), S7-400, and WinAC.
- Tuning functionality by means of PID Self-Tuner (part of STEP 7 as of V11 SP1).
- Reduces engineering costs thanks to time-saving parameterization and optimization of the controller

Technical specifications

Parameterization software	PID Professional
Type of license	Single license
Software class	A
Current version	V11
Target system	SIMATIC S7-300 (CPU 313 or higher) SIMATIC S7-400 WinAC
Required software packages	STEP 7 V11 SP2 Update 2 or higher
RAM	1 GB
Disk space required in PG/PC	2 GB
Processor, at least	Pentium M, 1.6 GHz or comparable
Operating systems	<ul style="list-style-type: none"> • Windows XP Professional SP3 • Windows 2003 Server R2 StdE SP2 • Windows 7 (Professional, Enterprise, Ultimate, 32/64 bit) • Windows 2008 Server StdE SP2
Standard FBs in general	
Required libraries	PID Professional V11
Forms of license	Single license and 1 runtime license
Software class	A
Current version	V11
Main memory configuration in PG/PC	16 MB
Disk space required in PG/PC	1.85 MB

Ordering data

PID Professional V11

Task:

Start-up tool for PID controllers

Requirement:

STEP 7 as of V11 SP2 Update 2

Delivery package:

on CD

Floating license for the engineering and blocks

6ES7 860-1XA01-0XA5

Floating license for the engineering and blocks

6ES7 860-1XA01-0XH5

License Key Download without software and documentation²⁾ email address required for delivery

6ES7 860-1XA01-0YL0

Software Update Service (requires current software version)¹⁾

6ES7 860-1XA01-0XE5

Upgrade license from Standard PID Control or Modular PID Control V5.x to PID Professional V11

6ES7 860-1XA01-0XK5

Upgrade license from Standard PID Control or Modular PID Control V5.x to PID Professional V11

License Key Download without software and documentation²⁾ email address required for delivery

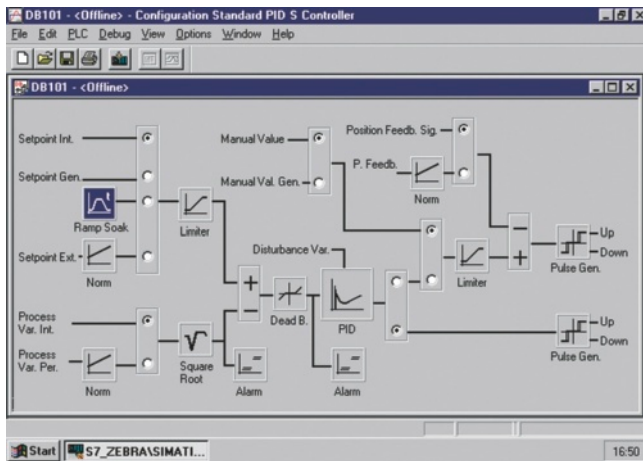
6ES7 860-1XA01-0XB0

Single license (certificate of license) for blocks; per CPU

¹⁾ For more information on the software update service, see page 11/3.

²⁾ For up-to-date information and download availability, see: <http://www.siemens.com/tia-online-software-delivery>.

Overview



- For integrating continuous PID controllers, pulse controllers and step controllers in the application program
- Reduces engineering costs thanks to time-saving parameterization and optimization of the controller
- For use in SIMATIC S7-300 (CPU 313 or higher), S7-400 and WinAC

Technical specifications

Parameterization software	Standard PID Control					
Type of license	Single license					
Software class	A					
Current version	V 5.2					
Target system	SIMATIC S7-300 (CPU 313 or higher) SIMATIC S7-400 SIMATIC C7					
Required software packages	STEP 7 V5.3 SP2 or higher					
Main memory configuration in PG/PC	16 MB					
Disk space required in PG/PC	1.85 MB					
Standard function blocks	PID_CP (FB 1)		PID_ES (FB 2)		LP_SCHED (FC 1)	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	8956 bytes	7796 bytes	9104 bytes	7982 bytes	1064 bytes	976 bytes
• DB length in the memory	1168 bytes	510 bytes	1124 bytes	484 bytes	184 bytes ²⁾	100 bytes ²⁾
Runtimes						
• In S7-300 ¹⁾	0.18 - 4.4 ms		0.2 - 5.1 ms		0.03 - 0.3 ms	
• In S7-400 ¹⁾	0.13 - 0.35 ms		0.16 - 0.35 ms		0.03 - 0.08 ms	
Required libraries	Standard PID Control FBs					
Licensing forms	Simple license and 1 runtime license; 1 runtime license					
Software class	A					
Current version	V 5.2					
Target system	SIMATIC S7-300 (CPU 313 or higher) SIMATIC S7-400 SIMATIC C7					
Required software packages	STEP 7 V5.3 SP2 or higher					
Main memory configuration in PG/PC	16 MB					
Disk space required in PG/PC	1.85 MB					

¹⁾ Depending on the CPU

²⁾ With 5 control loops

Software for SIMATIC controllers

Options for engineering and drive technology

Standard PID Control

Ordering data	Order No.		Order No.	
Standard PID Control parameterization tool, V5.2 Task: Parameterization tool for standard closed-loop controls Requirement: STEP 7, V5.3 SP2 or higher Delivery package: With electronic manual/Getting Started English, German; incl. authorization diskette Floating license Software Update Service (requires current software version) ¹⁾ Upgrade License from V5.x to V5.2	6ES7 830-2AA22-0YX0 6ES7 830-2AA00-0YX2 6ES7 830-2AA22-0YX4		SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	6ES7 998-8XC01-8YE0 6ES7 998-8XC01-8YE2
Standard function blocks for Standard PID Control, V5.2 Task: Standard FBs for standard closed-loop controls Target system: SIMATIC S7-300 (CPU 313 or higher), S7-400 Type of delivery: With electronic manual/Getting Started English, German Single license Single license without software and documentation	6ES7 860-2AA21-0YX0 6ES7 860-2AA21-0YX1		SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates	

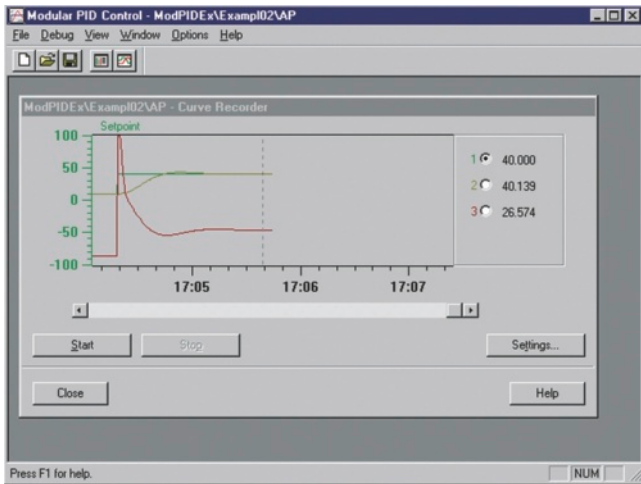
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for engineering and drive technology

Modular PID Control

Overview



- For creating complex closed-loop control structures
- Preferred for implementation in closed-loop control equipment in mid-range and high-end applications and in process engineering
- For use in SIMATIC S7-300 (CPU 313 or higher), S7-400 and WinAC

Technical specifications

Parameterization software	Modular PID Control
Type of license	Single license
Software class	A
Current version	V 5.1
Target system	SIMATIC S7-300 (CPU 313 or higher) SIMATIC S7-400 SIMATIC C7

Parameterization software	Modular PID Control
Required software packages	STEP 7 V5.3 SP2 or higher
Main memory configuration in PG/PC	16 MB
Disk space required in PG/PC	1.85 MB
Processor, at least	486
Windows swap area, approx.	20 MB (max. possible)

Standard function blocks	A_DEAD_B		CRP_IN		CPR_OUT	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	898 bytes	692 bytes	182 bytes	70 bytes	206 bytes	96 bytes
• DB length in the memory	186 bytes	44 bytes	122 bytes	20 bytes	114 bytes	14 bytes
Runtimes in S7-300	0.13 to 0.17 ms		0.06 ms		0.18 to 0.22 ms	
Runtimes in S7-400	0.01 to 0.03 ms		0.01 to 0.02 m		0.01 to 0.04 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	DEAD_T		DEAD_BAND		DIF	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	532 bytes	394 bytes	232 bytes	120 bytes	410 bytes	268 bytes
• DB length in the memory	142 bytes	22 bytes	114 bytes	16 bytes	158 bytes	30 bytes
Runtimes in S7-300	0.26 to 0.33 ms		0.16 to 0.21 ms		0.55 to 0.71 ms	
Runtimes in S7-400	0.02 to 0.06 m		0.01 to 0.03 ms		0.03 to 0.09 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	ERR_MON		INTEG		LAG1ST	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	558 bytes	360 bytes	488 bytes	314 bytes	534 bytes	368 bytes
• DB length in the memory	206 bytes	52 bytes	168 bytes	36 bytes	156 bytes	30 bytes
Runtimes in S7-300	0.27 to 0.35 ms		0.40 to 0.51 ms		0.52 to 0.67 ms	
Runtimes in S7-400	0.01 to 0.05 ms		0.02 to 0.07 ms		0.03 to 0.09 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Software for SIMATIC controllers

Options for engineering and drive technology

Modular PID Control

Technical specifications (continued)

Standard function blocks	LAG2ND		LIMALARM		LIMITER	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	690 bytes	516 bytes	390 bytes	240 bytes	262 bytes	140 bytes
• DB length in the memory	190 bytes	46 bytes	152 bytes	28 bytes	124 bytes	20 bytes
Runtimes in S7-300	0.88 to 1.14 ms		0.47 to 0.61 ms		0.14 to 0.17 ms	
Runtimes in S7-400	0.04 to 0.16 ms		0.02 to 0.07 ms		0.03 to 0.01 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	LMNGEN_C		LMNGEN_S		NONLIN	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	1576 bytes	1280 bytes	2578 bytes	2152 bytes	826 bytes	672 bytes
• DB length in the memory	276 bytes	80 bytes	360 bytes	110 bytes	138 bytes	18 bytes
Runtimes in S7-300	0.32 to 0.41 ms		1.16 to 1.47 ms		0.32 to 0.41 ms	
Runtimes in S7-400	0.02 to 0.06 ms		0.06 to 0.18 ms		0.02 to 0.07 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	NORM		OVERRIDE		PARA_CTL	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	234 bytes	122 bytes	362 bytes	214 bytes	406 bytes	232 bytes
• DB length in the memory	130 bytes	24 bytes	146 bytes	28 bytes	234 bytes	82 bytes
Runtimes in S7-300	0.33 to 0.43 ms		0.15 to 0.18 ms		0.12 to 0.15 ms	
Runtimes in S7-400	0.02 to 0.07 ms		0.01 to 0.04 ms		0.01 to 0.03 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	PID		PULSEGEN		RMP_SOAK	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	1560 bytes	1242 bytes	1110 bytes	872 bytes	1706 bytes	1500 bytes
• DB length in the memory	340 bytes	98 bytes	190 bytes	34 bytes	212 bytes	62 bytes
Runtimes in S7-300	1.15 to 1.46 ms		0.17 to 0.20 ms		0.16 to 0.20 ms	
Runtimes in S7-400	0.06 to 0.18 ms		0.01 to 0.05 ms		0.01 to 0.04 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Standard function blocks	ROC_LIM		SCALE		SP_GEN	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	1242 bytes	980 bytes	136 bytes	32 bytes	658 bytes	484 bytes
• DB length in the memory	222 bytes	50 bytes	114 bytes	16 bytes	164 bytes	40 bytes
Runtimes in S7-300	0.53 to 0.68 ms		0.10 to 0.13 ms		0.27 to 0.35 ms	
Runtimes in S7-400	0.02 to 0.09 ms		0.01 to 0.02 ms		0.02 to 0.06 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

Software for SIMATIC controllers

Options for engineering and drive technology

Modular PID Control

Technical specifications (continued)

Standard function blocks	SPLT_RAN		SWITCH		LP_SCHED	
Storage space requirements	Load memory	Work memory	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	304 bytes	180 bytes	238 bytes	116 bytes	1104 bytes	972 bytes ¹⁾
• DB length in the memory	138 bytes	28 bytes	118 bytes	18 bytes	234 bytes	64 bytes ¹⁾
Runtimes in S7-300	0.09 to 0.11 ms		0.07 to 0.09 ms		0.28 to 0.34 ms	
Runtimes in S7-400	0.01 to 0.02 ms		0.01 to 0.03 ms		0.03 to 0.08 ms	
Target system	SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC		SIMATIC S7-300 (CPU 313 and higher), S7-400, WinAC	

¹⁾ With 5 control loops

Standard FBs in general	
Required libraries	Modular PID Control FBs
Licensing forms	Simple license and 1 runtime license; 1 runtime license
Software class	A

Standard FBs in general	
Current version	V 5.1
Required software packages	STEP 7 V5.3 SP2 or higher
Main memory configuration in PG/PC	16 MB
Disk space required in PG/PC	1.85 MB

Ordering data

Modular PID Control commissioning tool, V5.1 for SIMATIC S7 and WinAC

Task:
Start-up tool for modular PID controllers

Requirement:
STEP 7, V5.3 SP2 or higher

Delivery package:
With electronic manual, English, German; incl. authorization diskette

Floating license

Software Update Service (requires current software version)¹⁾

Upgrade License from V5.0 to V5.1

Order No.

6ES7 830-1AA11-0YX0

6ES7 830-1AA00-0YX2

6ES7 830-1AA11-0YX4

Standard function blocks for Modular PID Control, V5.1

Task:
Standard FBs for modular PID controllers

Target system:
SIMATIC S7-300 (CPU 313 or higher), S7-400, WinAC

Type of delivery:
English, German;
with electronic manual

Single license

Single license, without software and documentation

6ES7 860-1AA10-0YX0

6ES7 860-1AA10-0YX1

SIMATIC Manual Collection

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

Order No.

6ES7 998-8XC01-8YE0

SIMATIC Manual Collection update service for 1 year

Current "Manual Collection" DVD and the three subsequent updates

6ES7 998-8XC01-8YE2

¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for engineering and drive technology

PID Self-Tuner

Overview

- PID Self-Tuner: For expanding existing PID controllers to create self-tuning PI or PID controllers.
- Optimization of PI or PID controllers with 3-step action (HEATING – OFF – COOLING)
- Convenient online initial setting and online adaptation during operation
- Ideally applicable to temperature controllers, but also suitable for level and flow controllers
- Can be used with SIMATIC S7-300 (CPU 313 or higher), SIMATIC S7-400 and WinAC; in combination with PID control (integrated in STEP 7), Standard PID Control, Modular PID Control, FM 355, FM 455 as well as with any PID algorithm

Technical specifications

Parameterization software	PID Self-Tuner			
Type of license	-			
Software class	-			
Current version	-			
Target system	-			
Operating system	-			
Required software packages	-			
Main memory configuration in PG/PC	-			
Disk space required in PG/PC	-			
Standard FBs	-			
PID Self-Tuner	TUN_EC		TUN_ES	
Storage space requirements	Load memory	Work memory	Load memory	Work memory
• FB length in the memory	approx. 6542 bytes	approx. 5956 bytes	6332 bytes	5714 bytes
• DB length in the memory	644 bytes	294 bytes	638 bytes	288 bytes
Runtimes				
• In S7-300	1.0 ms to 1.5 ms ¹⁾		1.0 ms to 1.5 ms ¹⁾	
• In S7-400	0.06 ms to 0.19 ms ¹⁾		0.06 ms to 0.19 ms ¹⁾	
Required libraries	PID Self-Tuner FBs V5.0			
Licensing forms	-			
Software class	A			
Current version	V5.0			
Target system	SIMATIC S7-300 (CPU 313 or higher) SIMATIC S7-400 SIMATIC C7-620			
Required software packages	STEP 7 V3.2 or higher			
Main memory configuration in PG/PC	-			
Disk space required in PG/PC	-			

¹⁾ Depending on the CPU selected

Ordering data

PID Self Tuner V5.1

Task:
Online optimization for PID controller
PLC:
SIMATIC S7-300 (CPU 313 or higher), S7-400, WinAC
Type of delivery:
Standard function blocks, electronic manual and Getting Started (German/English);
Single license
Single license, without software and documentation

Order No.

6ES7 860-4AA01-0YX0

6ES7 860-4AA01-0YX1

SIMATIC Manual Collection

Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC

SIMATIC Manual Collection update service for 1 year

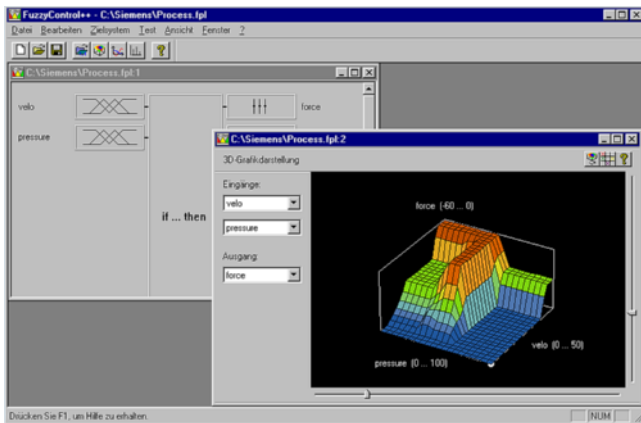
Current "Manual Collection" DVD and the three subsequent updates

Order No.

6ES7 998-8XC01-8YE0

6ES7 998-8XC01-8YE2

Overview



- For creating Fuzzy systems for SIMATIC S7 and SIMATIC WinCC
- For use at all levels of automation from the standalone controller through to plant optimization
- Can be combined with classical PID controllers to utilize the advantages of both systems for optimized closed-loop control

Technical specifications

Technical data for configuration tool	
Parameterization software	Fuzzy Control++
Type of license	Single license
Target system	SIMATIC S7-300 (CPU 314 or higher), SIMATIC S7-400
Processor	PC or PG with 80486 processor (or higher)

Technical data for configuration tool	
Main memory, min.	16 MB work memory (RAM)
Hard disk, min.	5 MB free memory on the hard disk
Operating system	Windows 95 or Windows NT 4.0

Technical data for standard function blocks			
	FUZZY_4K (FB 30)	FUZZY_20K (FB 31)	FUZZY_WinCC
Target system	SIMATIC S7-300 (CPU 314 or higher), SIMATIC S7-400	SIMATIC S7-400	SIMATIC WinCC
Communication PC/PG-S7	MPI bus, SOFTNET S7 for PROFIBUS	MPI bus, SOFTNET S7 for PROFIBUS	Not required
Runtimes	Depending on the number of rules, inputs and outputs: 13 up to 180 ms (S7-300), 1.8 up to 22 ms (S7-400)	Depending on the number of rules, inputs and outputs: 1.8 up to 150 ms (S7-400)	not measurable
Memory requirement	<ul style="list-style-type: none"> • FB 1524 bytes • DB 4228 bytes 	<ul style="list-style-type: none"> 1524 bytes 20612 bytes 	not measurable
Number of inputs	8 with max. 7 association functions each	8 with max. 7 association functions each	8 with max. 7 association functions each
Number of outputs	4 with max. 9 association functions each	4 with max. 9 association functions each	4 with max. 9 association functions each
Number of rules, max.	200	2000	2000
Required libraries	Fuzzy Control++ FBs		
Licensing forms	Single license		
Software class	A		
Current version	V 4.0		
Operating system	Windows 95/NT		
Main memory configuration in PG/PC	16 MB on PG/PC		
Disk space required in PG/PC	5 MB		

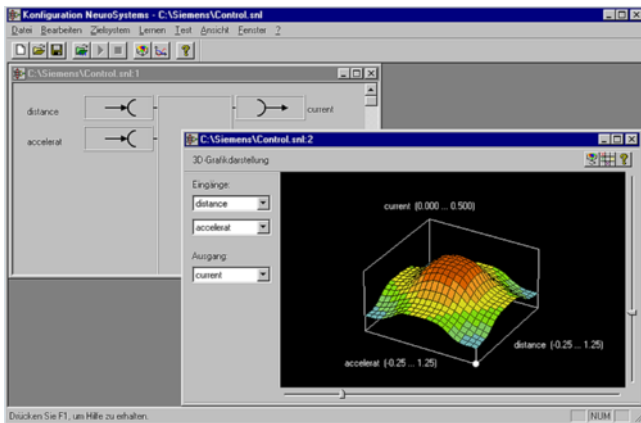
Software for SIMATIC controllers

Options for engineering and drive technology

Fuzzy Control

Ordering data	Order No.		Order No.
Fuzzy Control++ configuration tool Function blocks for S7-300/400 CPU 314 and higher incl. SmartObject for SIMATIC WinCC, manual; single license Basic license Copy license	2XV9 450-1WC10-0AA1 2XV9450-1WC11-4XA0	SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	6ES7 998-8XC01-8YE0
		SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates	6ES7 998-8XC01-8YE2

Overview



- For creating and teaching neuronal networks
- For use with problems whose structure and solution are only partially known
- Applications:
 - Data-based optimization
 - Identification of characteristics or processes
 - Filtering of data
 - Data evaluation and interpretation
 - Non-linear single and multiple-variable closed-loop control
 - Pattern recognition and diagnostics

Technical specifications

Technical data for configuration tool	
Parameterization software	Neuro systems
Type of license	Single license
Target system	SIMATIC S7-300 (CPU 314 or higher) SIMATIC S7-400
Processor	PC or PG with 80486 processor (or higher)

Technical data for configuration tool	
Main memory, min.	16 MB work memory (RAM)
Hard disk, min.	5 MB free memory on the hard disk
Operating system	Windows 95 or Windows NT 4.0

Technical data for standard function blocks				
	NEURO_4K (FB 100)	NEURO_20K (FB 101)	NEURO_WinCC	
Target system	SIMATIC S7-300 (CPU 314 or higher), SIMATIC S7-400	SIMATIC S7-400	SIMATIC WinCC	
Communication PC/PG-S7	MPI bus, SOFTNET S7 for PROFIBUS	MPI bus, SOFTNET S7 for PROFIBUS	Not required	
Runtimes	Depending on the number of inputs, outputs and neurons: 6.5 up to 270 ms (S7-300) 3.3 up to 140 ms (S7-400)	Depending on the number of inputs, outputs and neurons: 3.3 up to 260 ms (S7-400)	not measurable	
Memory requirement	• FB • DB	2246 bytes 4278 bytes	2210 bytes 20612 bytes	not measurable
Number of inputs, max.	4	100	10	
Number of outputs, max.	4	10	10	
Line supply types	MLP, RBF, neuro-fuzzy	MLP, RBF, neuro-fuzzy	MLP, RBF, neuro-fuzzy	
Required libraries	Neuro systems FBs			
Licensing forms	Single license			
Operating system	Windows 95/NT			
Main memory configuration in PG/PC	16 MB on PG/PC			
Disk space required in PG/PC	5 MB			

Software for SIMATIC controllers

Options for engineering and drive technology

NeuroSystems

Ordering data	Order No.		Order No.
NeuroSystems configuration tool Function blocks for S7-300/400 CPU 314 and higher incl. SmartObject for SIMATIC single license Basic license Copy license	2XV9 450-1WC15-0AA0 2XV9 450-1WC16-4XA0	SIMATIC Manual Collection Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC bus components, SIMATIC C7, SIMATIC distributed I/O, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	6ES7 998-8XC01-8YE0
		SIMATIC Manual Collection update service for 1 year Current "Manual Collection" DVD and the three subsequent updates	6ES7 998-8XC01-8YE2

Software for SIMATIC controllers

Options for engineering and drive technology

S7-Technology

Overview

- Option package for creating motion control tasks for CPU 31xT-2 DP and CPU 317TF-2 DP
- Optimal embedding in the automation world thanks to total integration in the STEP 7 tools
- Programming in the standard SIMATIC programming languages LAD, FBD and STL
- Additional Engineering Tools such as S7-SCL or S7-GRAPH can be used

Ordering data

Order No.

S7-Technology V4.2

Task:

Option package for configuring and programming technology tasks with SIMATIC S7 CPU 31xT-2 DP and the SIMATIC S7 CPU 317TF-2 DP

Requirement:

STEP 7 V5.5 SP2 or higher

Delivery package:

on DVD;
incl. documentation for CPU 31xT-2 DP, CPU 317TF-2 DP (included on DVD)

Floating license

6ES7 864-1CC42-0YA5

Upgrade to V4.2

6ES7 864-1CC42-0YE5

Trial License

6ES7 864-1CC42-0YA7

Software for SIMATIC controllers

Options for engineering and drive technology

Easy Motion Control

Overview

- Low-priced package for simple, controlled positioning and simple geared synchronous motion
- For use with any standard variable-speed drive, such as frequency converter or servo drive
- For incremental and absolute encoders

Technical specifications

Supported hardware:

Easy Motion Control is runnable on the following CPUs:

- S7-300.
- S7-400.
- WinAC.
- ET 200S.
- ET 200pro.

Supported modules for the measuring of actual values:

- CPU 314C (FW version 2.0 of the CPU or higher).
- ET 200S 1 Count 5V/500 kHz.
- ET 200S 1 Count 24V/100kHz.
- ET 200S 1SSI.
- SM 338.

- FM 350-1, FM 450-1.
- SIMODRIVE sensor with PROFIBUS DP.
- IM 174.
- Other modules for measuring actual values (using free driver).

Supported modules for setpoint output:

- ET 200S 2AO U.
- SM 332.
- SM 432.
- IM 174.
- Other modules for setpoint output (using free driver).

Supported drives using PROFIBUS DP:

- Micromaster 4.
- SINAMICS G120.
- SINAMICS S120.

Storage space requirements

Required main storage in byte		
Block	Required main storage per block	Additional main storage required per instance
MC_Init	1086	-
MC_MoveAbsolute	3924	112
MC_MoveRelative	2982	110
MC_MoveJog	3110	110
MC_Home	2886	104
MC_StopMotion	1114	70
MC_Control	1756	58
MC_Simulation	410	64
MC_GearIn	3476	128
Input driver	1416 ... 2654	76 ... 128
Output driver	384 ... 1242	52 ... 68
Axis data block	-	294

Technical specifications (continued)

Runtime load

Typical runtimes of the blocks in µs				
Block	CPU 416-2 DP 6ES7 416-2XK02-0AB0	CPU 314C 6ES7 314-6CF00-0AB0	CPU 315-2 DP 6ES7 315-2AF03-0AB0	WinLC RTX 3.1 on AMD, 1333 MHz
MC_Init	53	967	2203	21
MC_MoveAbsolute 1)	67	908	2138	18
MC_MoveRelative 1)	67	911	2143	18
MC_MoveJog 1)	48	605	1387	15
MC_Home 1)	49	592	1332	15
MC_StopMotion 1)	23	309	696	8
MC_Control	27	343	819	11
MC_Simulation	23	259	584	6
MC_GearIn	66	931	2130	21
Input driver	50	662	1323	44
Output driver	20	223	413	31

¹⁾ The highlighted travel blocks require more runtime once at the start of a trip. For more information please consult the manual.

Ordering data

Easy Motion Control V2.1

Task:
Controlled positioning with
standard variable-speed drives
Requirement:
STEP 7 V5.3 SP2
Delivery package:
incl. software and documentation
(German, English), on CD
Single license

Order No.

6ES7 864-0AC01-0YX0

Easy Motion Control V11

Task:
Controlled positioning with
standard variable-speed drives
Requirement:
STEP 7 V11 SP2
Delivery package:
incl. software and documentation
(German, English), on CD, license
key on USB stick
Single license
Single License, license key
download without software and
documentation ¹⁾;
E-mail address required for delivery

Order No.

6ES7 864-2XA01-0XA5
6ES7 864-2XA01-0XH5

Easy Motion Control without software and documentation

Type of delivery:
CoL for one runtime license
(valid for Easy Motion Control V2.x
and V11)
Single license, without software and
documentation

6ES7 864-0AF01-0YX0

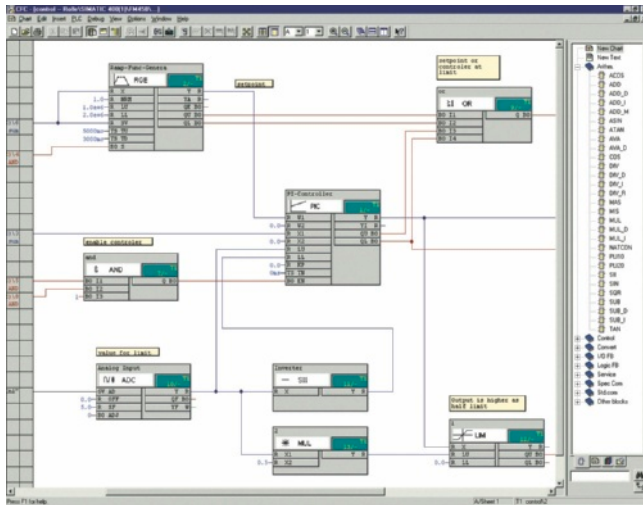
¹⁾ For up-to-date information and download availability, see:
<http://www.siemens.com/tia-online-software-delivery>.

Software for SIMATIC controllers

Options for engineering and drive technology

D7-SYS

Overview



- Add-on for STEP 7/CFC/SFC for configuration of control and automation tasks with T400, FM 458, SIMADYN D or SIMATIC TDC
- Contains function blocks for every application
- Scope of delivery: Software packages D7-SYS, CFC, SFC, TH-PO
- Optional:
D7-FB-Gen, function block generator for the creation of customized function blocks

Ordering data

Order No.

SIMATIC D7-SYS V8.0

Task:
Function block library for configuring closed-loop control and automation tasks

Target system:

SIMATIC S7-400/FM 458/
SIMATIC TDC/T400/SIMADYN

Requirement:

Windows XP, Windows 7 32/64-bit,
Windows Server 2003/2008

Type of delivery:

on CD, German, English,
with electronic documentation

Floating license

6ES7 852-0CC03-0YA5

Upgrade License V7.x and higher

6ES7 852-0CC03-0YE5

Software Update Service¹⁾

6ES7 852-0CC01-0YL5

SIMATIC D7 FB Gen V2.1

6DD1 805-5DA0

Function block generator

SIMATIC Manual Collection

6ES7 998-8XC01-8YE0

Electronic manuals on DVD,
multilingual: LOGO!, SIMADYN,
SIMATIC bus components,
SIMATIC C7,
SIMATIC distributed I/O,
SIMATIC HMI,
SIMATIC Sensors,
SIMATIC NET,
SIMATIC PC Based Automation,
SIMATIC PCS 7,
SIMATIC PG/PC,
SIMATIC S7,
SIMATIC Software,
SIMATIC TDC

SIMATIC Manual Collection update service for 1 year

6ES7 998-8XC01-8YE2

Current "Manual Collection" DVD
and the three subsequent updates

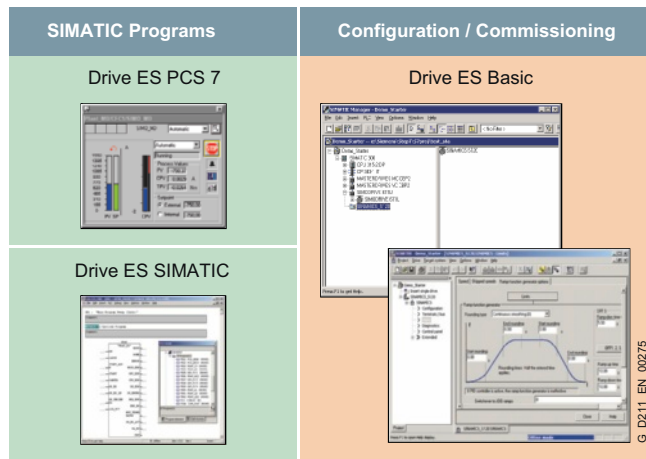
¹⁾ For more information on the software update service, see page 11/3.

Software for SIMATIC controllers

Options for engineering and drive technology

Drive ES engineering software

Overview



Drive ES is the engineering system used to integrate Siemens drive technology into the SIMATIC automation world easily, efficiently and cost-effectively in terms of communication, configuration and data management.

It is based on the operator interface of the STEP 7 Manager, the essential element when it comes to engineering.

Ordering data

Order No.

Drive ES PCS 7 V6.1 SPx ^{*)}

Function block library for PCS 7 for the integration of drives
Precondition: PCS 7 V6.1 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime license (without data carrier)
- Update service for single-user license

6SW1700-6JD00-1AA0

6SW1700-5JD00-1AC0

6SW1700-0JD00-0AB2

Drive ES PCS 7 V7.0 SPx ^{*)}

Function block library for PCS 7 for the integration of drives

Precondition: PCS 7 V7.0 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime license (without data carrier)
- Update service for single-user license
- Upgrade from V5.x to V7.0 SPx ^{*)}

6SW1700-7JD00-0AA0

6SW1700-5JD00-1AC0

6SW1700-0JD00-0AB2

6SW1700-7JD00-0AA4

Drive ES PCS 7 V7.1 SPx ^{*)}

Function block library for PCS 7 for the integration of drives

Precondition: PCS 7 V7.1 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime license (without data carrier)
- Update service for single-user license
- Upgrade from V6.x to V7.1 SPx ^{*)}

6SW1700-7JD00-1AA0

6SW1700-5JD00-1AC0

6SW1700-0JD00-0AB2

6SW1700-7JD00-1AA4

Drive ES PCS 7 V8.0 SPx ^{*)}

PCS 7 block library for drive integration in classic style (as predecessor)
Precondition: PCS 7 V8.0 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime License (without data carrier)
- Update service for single-user license
- Upgrade from V6.x to V8.0 SPx ^{*)}

6SW1700-8JD00-0AA0

6SW1700-5JD00-1AC0

6SW1700-0JD00-0AB2

6SW1700-8JD00-0AA4

Drive ES PCS 7 APL V8.0 SPx ^{*)}

PCS 7 block library for drive integration in APL style
Precondition: PCS 7 V8.0 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime License (without data carrier)
- Update service for single-user license

6SW1700-8JD01-0AA0

6SW1700-5JD00-1AC0

6SW1700-0JD00-0AB2

Ordering data

Order No.

Drive ES Basic V5.5 SPx ^{*)}

Configuration software for the integration of drives into TIA (Totally Integrated Automation)

Precondition: STEP 7 from V5.3, SP3 and higher

Supplied as: DVD
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Floating license, 1 user
- Floating license (copy license), 60 users
- Update service for single-user license
- Update service for copy license, 60 users
- Upgrade from V5.x to V5.5 SPx ^{*)}

6SW1700-5JA00-5AA0

6SW1700-5JA00-5AA1

6SW1700-0JA00-0AB2

6SW1700-0JA00-1AB2

6SW1700-5JA00-5AA4

Drive ES SIMATIC V5.5 SPx ^{*)}

Function block library for SIMATIC for the parameterization of communication with the drives

Precondition: STEP 7 from V5.3, SP3 and higher

Supplied as: CD-ROM
Languages: Eng, Fr, Ger, It, Sp with electronic documentation

- Single-user license incl. 1 runtime license
- Runtime license (without data carrier)
- Upgrade from V5.x to V5.5 SPx ^{*)}

6SW1700-5JC00-5AA0

6SW1700-5JC00-1AC0

6SW1700-5JC00-5AA4

^{*)} Orders are always automatically supplied with the latest SP.

Software for SIMATIC controllers

Software for joint tasks in the documentation sector

Technical product data for CAx applications

Overview

The DVD "Technical Product Data for CAx Applications – Industrial Automation System" contains technical product data for ca. 1,400 products from the following families:

- S7-300 / S7-400
- C7
- Bus components
- ET 200M / S / iS / iSP / X / eco / ecoPN / pro / L
- Communication / Networks

Ordering data

Technical product data for CAx applications

Task:
Product data for use in CAD/CAE applications

One Off License

Order No.

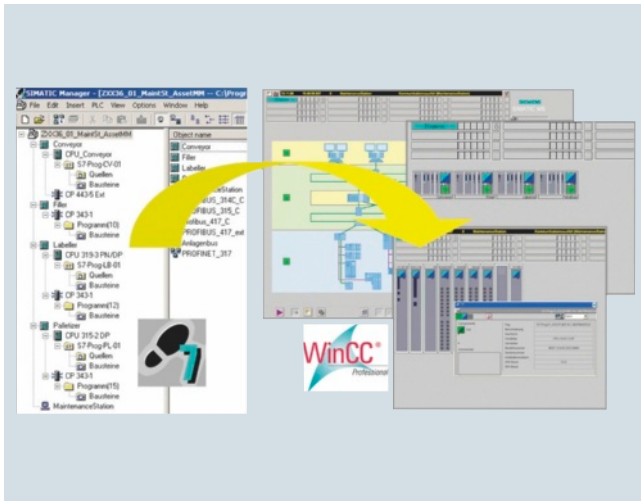
6ES7 991-0CD01-0YX0

Software for SIMATIC controllers

Software for joint tasks in the maintenance sector

SIMATIC Maintenance Station

Overview



System-integrated plant asset management system

- Automatic generation of a maintenance view in WinCC from the STEP 7 hardware configuration
- Plant-wide visualization of all automation components from the management level to the field level in ready linked, hierarchically arranged WinCC displays
- Mapping of central and distributed SIMATIC S7 components, PROFIBUS and PROFINET networks as well as associated bus nodes
- Ethernet network components and industrial PCs can be integrated through SIMATIC NET SNMP OPC Server
- Display of device status with group status generation in overview and detail displays
- The device statuses "Maintenance required" and "Maintenance request" are supported for status-based maintenance
- Provision of uniform faceplates showing detailed information for all components displayed
- Display of the device identification data (electronic rating plate)
- Integrated display of the status of the request

Technical specifications

Hardware requirements

System	Clock frequency	Main memory	Free hard disk space
Engineering station	2.8 GHz	1 GB	15 GB
Maintenance Station Stand-alone / WinCC-Station "Single-user Workstation"	2.8 GHz	1 GB	15 GB
Maintenance Station Server / WinCC Server	2.8 GHz	1 GB	15 GB
Maintenance Station Client / WinCC Client	2.8 GHz	512 MB	3 GB

Software requirements

System	Operating system
Engineering station "ES"	Windows XP Professional SP2 Windows Server 2003 SP1
Maintenance Station Stand-alone / WinCC-Station "Single-user Workstation"	Windows XP Professional SP2 Windows Server 2003 SP1
ES with Maintenance Station Stand-alone	Windows XP Professional SP2 Windows Server 2003 SP1
Maintenance Station Server / WinCC Server	Windows Server 2003 SP1
Maintenance Station Client / WinCC Client	Windows XP Professional SP2 Windows Server 2003 SP1

Software for SIMATIC controllers

Software for joint tasks in the maintenance sector

SIMATIC Maintenance Station

Technical specifications (continued)

Requirements for the integration of devices

Type	Integration	Comment
SIMATIC S7 controllers / I/O <ul style="list-style-type: none"> • S7-300 ¹⁾ • S7-400 • WinAC 	Yes Yes Yes	
Distributed devices <ul style="list-style-type: none"> • ET 200 • PROFIBUS standard slaves • PROFINET standard devices 	Yes Yes Yes	PROFIBUS DP and PROFINET IO according to STEP 7 hardware catalog Integration using a GSD file Integration using a GSD file
Network components <ul style="list-style-type: none"> Ethernet network components PROFINET network components PROFIBUS diagnostic repeater 	Yes Yes Yes	SIMATIC NET SNMP OPC Server and MIB also required
Personal Computer <ul style="list-style-type: none"> PC/Industrial PC 	Yes	SIMATIC NET SNMP OPC Server also required
Drives <ul style="list-style-type: none"> Drives with PROFIBUS connection Drives with PROFINET connection 	Yes Yes	For integrating devices designed to the PROFIDRIVE profile, Drive ES SIMATIC (V5.4 SP1 or higher) is required For integrating devices designed to the PROFIDRIVE profile, Drive ES SIMATIC (V5.4 SP1 or higher) is required
Accessory devices <ul style="list-style-type: none"> Devices not configured in STEP 7 Hardware Config 	Yes	Integrated via function block (asset proxy)

¹⁾ With S7-300, PROFIBUS/PROFINET systems are supported if they are connected to the internal CPU interfaces

Ordering data

SIMATIC Maintenance Station 2009

Can be used with STEP 7 V5.4 or higher and WinCC V7

- Basic package with engineering software (Floating License) and Runtime License for 100 devices
- Powerpack 100 Runtime License for 100 additional devices

Order No.

6ES7 840-0WD01-0YA0

6ES7 840-0WD11-0YD0

Order No.

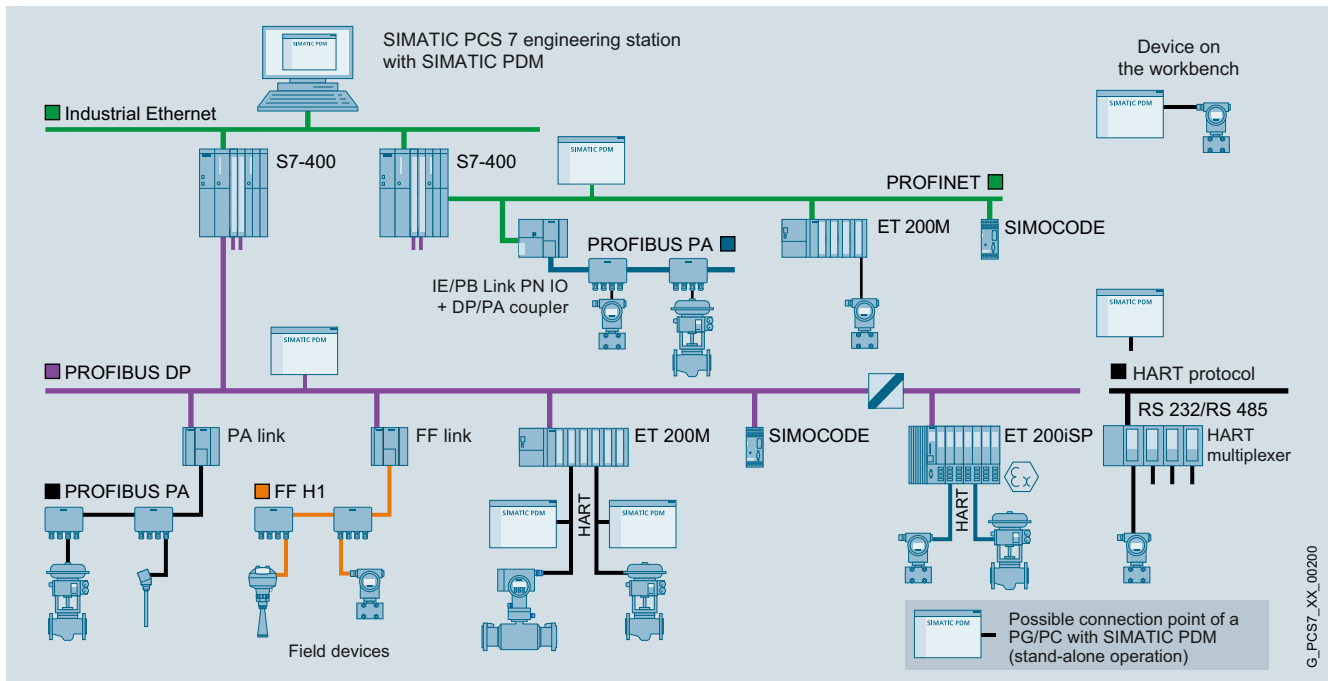
6ES7 840-0WD21-0YD0

6ES7 840-0WD31-0YD0

6ES7 840-0WD01-0YA7
6ES7 840-0WD01-0YE0

- Powerpack 500 Runtime License for 500 additional devices
- Powerpack 1000 Runtime License for 1000 additional devices
- Basic demo package 2009
- Upgrade from SIMATIC Maintenance Station 2007 to SIMATIC Maintenance Station 2009

Overview



Configuration options with SIMATIC PDM

SIMATIC PDM (Process Device Manager) is a universal, vendor-independent tool for the configuration, parameter assignment, commissioning, diagnostics and servicing of intelligent field devices (sensors and actuators) and field components (remote I/Os, multiplexers, control-room devices, compact controllers), which in the following sections will be referred to simply as devices.

Using *one* software, SIMATIC PDM enables the processing of more than 2 500 devices from Siemens and over 200 vendors worldwide on *one* homogeneous user interface.

The user interface satisfies the requirements of the VDI/VDE GMA 2187 and IEC 65/349/CD directives. Parameters and functions for all supported devices are displayed in a consistent and uniform fashion independent of their communications interface. Even complex devices with several hundred parameters can be represented clearly and processed quickly. Using SIMATIC PDM it is very easy to navigate in highly complex stations such as remote I/Os and even connected field devices.

From the viewpoint of device integration, SIMATIC PDM is the most powerful open device manager available in the world. Devices which previously were not supported can be easily integrated in SIMATIC PDM at any time by importing their device descriptions (EDD). This provides security for your investment and saves you investment costs, training expenses and follow-up costs.

SIMATIC PDM supports the operative system management in particular through:

- Uniform presentation and operation of devices
- Indicators for preventive maintenance and servicing
- Detection of changes in the project and device
- Increasing the operational reliability
- Reducing the investment, operating and maintenance costs
- Graded user privileges including password protection

When used in SIMATIC PCS 7, SIMATIC PDM is integrated in the asset management of the process control system. You can change directly to the SIMATIC PDM views from the diagnostics faceplates in the Maintenance Station.

The Process Device Manager provides more detailed information for all devices described by means of an Electronic Device Description (EDD), e.g.:

- Detailed diagnostics information (manufacturer information, information on error diagnostics and troubleshooting, further documentation)
- Information on changes (audit trail report)
- Parameter information

Software for SIMATIC controllers

Software for joint tasks in the maintenance sector

SIMATIC PDM

Technical specifications

	SIMATIC PDM V6.1	SIMATIC PDM V8.0
Hardware	<ul style="list-style-type: none"> PG/PC/notebook with processor corresponding to operating system requirements 	<ul style="list-style-type: none"> PG/PC/notebook with processor corresponding to operating system requirements
Operating systems (alternative)	<ul style="list-style-type: none"> Microsoft Windows XP Professional SP3, 32-bit Microsoft Windows Server 2003 R2 SP2, Standard Edition 	<ul style="list-style-type: none"> Windows XP Ebedded Standard 2009 Windows XP Professional SP3 (32-bit) Windows Server 2003 SP2 Standard Edition (32-bit) Windows Server 2003 R2 SP2 Standard Edition (32-bit) Windows 7 Enterprise/Ultimate SP1 (32-bit/64-bit) Windows Server 2008 SP2 Standard Edition (32-bit) Windows Server 2008 R2 SP1 Standard Edition (64-bit)
Integration in STEP 7 / PCS 7	<ul style="list-style-type: none"> STEP 7 V5.3+SP2 STEP 7 V5.4+SP5 STEP 7 V5.5 or V5.5+SP1/SP2 SIMATIC PCS 7 V6.1+SP4 SIMATIC PCS 7 V7.1 or V7.1+SP1/SP2/SP3 SIMATIC PCS 7 V8.0 	<ul style="list-style-type: none"> SIMATIC PCS 7 V8.0 STEP 7 V5.5+SP2

Ordering data

Order No.

Order No.

Selection and order data for TIA applications with SIMATIC PDM V6.1

Product packages

Minimum configuration

SIMATIC PDM Single Point V6.1
for operation and configuration of one field device; communication via PROFIBUS DP/PA, HART modem or Modbus, including 1 TAG

cannot be expanded with respect to functions or with TAG option/Power-Pack

6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user

Delivery package: License key memory stick, Certificate of License including Terms and Conditions; software SIMATIC PDM V6.1 and device library on CD/DVD

6ES7 658-3HX16-0YA5

Basic configuration for individual product packages

SIMATIC PDM Basic V6.1
Product package for operator input and configuration of field devices and components, communication via PROFIBUS DP/PA, HART (modem, RS 232, PROFIBUS), SIREC bus, SIPART DR, Modbus or Ethernet, including 4 TAGs

6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user

Delivery package: License key memory stick, Certificate of License including Terms and Conditions; software SIMATIC PDM V6.1 and device library on CD/DVD

6ES7 658-3AX16-0YA5

Application-specific configurations

SIMATIC PDM Service V6.1

Product package for stand-alone users for servicing, with

- SIMATIC PDM Basic V6.1
- 128 TAGs

6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user

Delivery package: License key memory stick, Certificate of License including Terms and Conditions; software SIMATIC PDM V6.1 and device library on CD/DVD

6ES7 658-3JX16-0YA5

SIMATIC PDM S7 V6.1

Product package for use in a SIMATIC S7 configuration environment, with

- SIMATIC PDM Basic V6.1
- Integration in STEP 7 / PCS 7
- 128 TAGs

6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user

Delivery package: License key memory stick, Certificate of License including Terms and Conditions; software SIMATIC PDM V6.1 and device library on CD/DVD

6ES7 658-3KX16-0YA5

Software for SIMATIC controllers

Software for joint tasks in the maintenance sector

SIMATIC PDM

Ordering data	Order No.	Order No.
<p>Optional product components for SIMATIC PDM V6.1</p> <p>Integration in STEP 7 / SIMATIC PCS 7 only required for integration of SIMATIC PDM into HW Config 6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user Delivery package: License key memory stick, Certificate of License including Terms and Conditions</p>	6ES7 658-3BX16-2YB5	<p>Demonstration software</p> <p>SIMATIC PDM Demo V6.1 Without online communication and storage functionality 6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003 Delivery package: SIMATIC PDM V6.1 software and device library on CD/DVD</p> <p>6ES7 658-3GX16-0YC8</p>
<p>Routing 6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user Delivery package: License key memory stick, Certificate of License including Terms and Conditions</p>	6ES7 658-3CX16-2YB5	<p>Selection and order data for TIA applications with SIMATIC PDM V8.0</p> <p>Product packages</p> <p>SIMATIC PDM S7 V8.0 Product package for use in a SIMATIC S7 configuration environment, with • SIMATIC PDM Basic and Extended • Integration in STEP 7 / PCS 7 • 100 TAGs 5 languages (German, English, French, Italian, Spanish), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit or Windows Server 2008 R2 Standard 64-bit, floating license for 1 user Note: SIMATIC PDM S7 V8.0 requires the installation of STEP 7 V5.5+SP2. Delivery package: License key memory stick, certificate of license; SIMATIC PDM V8.0 software and device library on DVD</p> <p>6ES7 658-3KX08-0YA5</p>
<p>Communication via standard HART multiplexer 6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user Delivery package: License key memory stick, Certificate of License including Terms and Conditions</p>	6ES7 658-3EX16-2YB5	<p>Optional product components</p> <p>Routing V8.0 5 languages (German, English, French, Italian, Spanish), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit or Windows Server 2008 R2 Standard 64-bit, floating license for 1 user Delivery package: License key memory stick, certificate of license</p> <p>6ES7 658-3CX08-2YB5</p>
<p>TAG options/PowerPacks for SIMATIC PDM V6.1</p> <p>SIMATIC PDM TAG option for TAG expansion, additive to SIMATIC PDM Basic V6.1 Software class A, runs with Windows XP Professional/Server 2003, floating license for 1 user Delivery package: License key memory stick, Certificate of License including Terms and Conditions</p> <ul style="list-style-type: none"> • Up to 128 TAGs • Up to 512 TAGs • Up to 1 024 TAGs • Up to 2 048 TAGs 	<p>6ES7 658-3XA16-2YB5 6ES7 658-3XB16-2YB5 6ES7 658-3XC16-2YB5 6ES7 658-3XD16-2YB5</p>	<p>SIMATIC PDM Communication FOUNDATION Fieldbus V8.0 5 languages (German, English, French, Italian, Spanish), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit or Windows Server 2008 R2 Standard 64-bit, floating license for 1 user Delivery package: License key memory stick, certificate of license</p> <p>6ES7 658-3QX08-2YB5</p>
<p>SIMATIC PDM PowerPack for TAG expansion, for any SIMATIC PDM V6.1 product packages Software class A, runs with Windows XP Professional/ Server 2003, floating license for 1 user Delivery package: License key memory stick, Certificate of License including Terms and Conditions</p> <ul style="list-style-type: none"> • From 128 TAGs to 512 TAGs • From 512 TAGs to 1 024 TAGs • From 1 024 TAGs to 2 048 TAGs • From 2 048 TAGs to unlimited number of TAGs 	<p>6ES7 658-3XB16-2YD5 6ES7 658-3XC16-2YD5 6ES7 658-3XD16-2YD5 6ES7 658-3XH16-2YD5</p>	

Software for SIMATIC controllers

Software for joint tasks in the maintenance sector

SIMATIC PDM

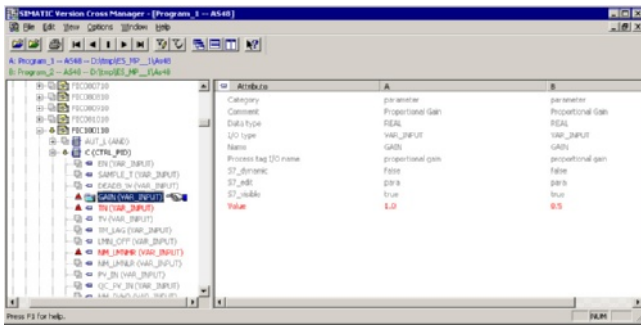
Ordering data	Order No.	Ordering data	Order No.
<p>SIMATIC PDM TAGs for SIMATIC PDM V8.0</p> <p>SIMATIC PDM TAGs TAG licenses for expanding SIMATIC PDM product packages V7.0 or higher, can be accumulated, software class A, floating license for 1 user</p> <p>Delivery package: License key memory stick, certificate of license</p> <ul style="list-style-type: none"> • 10 TAGs • 100 TAGs • 1 000 TAGs 	<p>6ES7 658-3XC00-2YB5 6ES7 658-3XD00-2YB5 6ES7 658-3XE00-2YB5</p>	<p>Demonstration software</p> <p>SIMATIC PDM Demo V8.0 Without online communication and storage functionality</p> <p>6 languages (German, English, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit or Windows Server 2008 R2 Standard 64-bit</p> <p>Delivery package: SIMATIC PDM V8.0 software and device library on DVD</p>	<p>6ES7 658-3GX08-0YT8</p>

Software for SIMATIC controllers

Software for joint tasks in the administration sector

Version cross manager

Overview



The SIMATIC Version Cross Manager is a user-friendly tool for determining the differences between various versions of individual projects or multi-projects by:

- tracing missing, additional or differing objects by comparing hardware configuration, communication, plant hierarchy, CFC/SFC plans, SFC details, block types, messages, global tags, signals and run sequences
- Graphic display of comparison results in a combination of tree and tabular formats
- Clear hierarchical structuring according to the technological hierarchy of the plant
- Color-coded identification of the differences

Ordering data

Order No.

SIMATIC Version Cross Manager V7.1

Can be used with SIMATIC PCS 7 V7.1 and V8.0
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit or Windows Server 2008 R2 Standard 64-bit, floating license for 1 user

- Delivery package (without SIMATIC PCS 7 Software Media Package)
License key on USB stick, Certificate of License as well as TIA Engineering Toolset CD

6ES7 658-1CX17-2YA5

- Delivery package (without SIMATIC PCS 7 Software Media Package) License key download, Certificate of License online
Note:
E-mail address required!

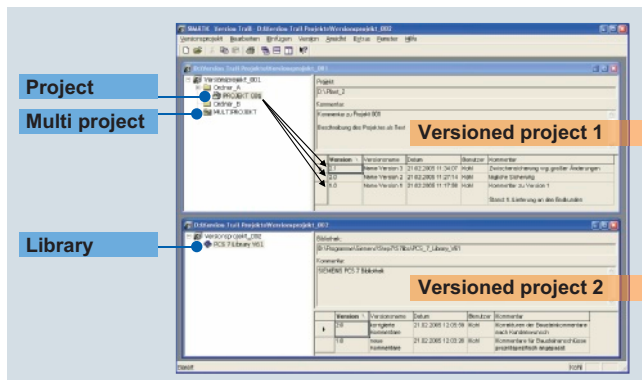
6ES7 658-1CX17-2YH5

Software for SIMATIC controllers

Software for joint tasks in the administration sector

Version Trail

Overview



SIMATIC Version Trail is a software option for engineering which, together with the SIMATIC Logon central user administration, can assign a version history to libraries, projects and multi-projects.

Ordering data

Order No.

SIMATIC Version Trail V8.0

6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows XP Professional 32-bit, Windows 7 Ultimate 32/64-bit, Windows Server 2003 R2 Standard 32-bit, or Windows Server 2008 R2 Standard 64-bit, floating license for 1 user

- Delivery package (without SIMATIC PCS 7 Software Media Package) License key on USB stick, Certificate of License as well as TIA Engineering Toolset CD

6ES7 658-1FX08-2YA5

- Delivery package (without SIMATIC PCS 7 Software Media Package) License key download, Certificate of License online

6ES7 658-1FX08-2YH5

Note:
E-mail address required!

Software for SIMATIC controllers

Software for joint tasks in the administration sector

ADDM - Data Management

Overview



With ADDM, you are completely in control of the SIMATIC and SINUMERIK controls – around the clock and with any program version. This tool is indispensable in a modern production area and ensures user-friendly backup, comparison and management of control data.

Ordering data

Order No.

ADDM

Software package
Languages: English, German

ADDM Single User

- For PC/PG with Windows XP
- Single license with CD-ROM of current software version
 - Single user upgrade

6BQ3 030-1AA30-3AD0

6BQ3 030-1AB13-3AD0

ADDM Client

- For PC/PG with Windows XP
- Single license with CD-ROM of current software version
 - Client upgrade from V5.x to V6.2 with CD-ROM

6BQ3 030-1AA10-0AD0

6BQ3 030-1AB11-3AD0

ADDM Server

For server PC with Windows XP and Windows 2003 Server

- Single license with CD-ROM of current software version
- Server upgrade from V5.x to V6.2 with CD-ROM

6BQ3 030-1AA00-3AD0

6BQ3 030-1AB10-3AD0

ADDM Agent

For SINUMERIK PCU with HMI-Advanced

- Single license without data carrier
- Single license with CD-ROM of current software version
- Agent upgrade from V1.x to V1.3 with CD-ROM

6BQ3 030-1AA00-1AB0

6BQ3 030-4AA00-0AD0

6BQ3 030-1AB12-3AD0

Software for SIMATIC controllers

Additional software

KNX/EIB2S7

Overview



- Software for SIMATIC S7 communication with components of a building automation unit
- For use of industry automation components in building automation
- Allows the integration of actuators/sensors on a KNX/EIB bus in automation solutions with SIMATIC S7
- For the use of information from building automation for the automation of a production plant

Ordering data

Order No.

KNX/EIB2S7 program package

6AV6 643-7AC10-0AA1

Task:

Software for connecting KNX/EIB building technology components to SIMATIC S7;

Type of delivery:

Editor, function blocks for SIMATIC S7, samples, documentation on CD; license for editor on USB flash memory