# SIEMENS

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SIMOTION

SIMOTION References - Overview of the SIMOTION Documentation

Catalog

## Legal information

## Warning notice system

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

### 

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

#### 

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

## 

with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.

#### CAUTION

without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.

#### NOTICE

indicates that an unintended result or situation can occur if the relevant information is not taken into account.

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

## **Qualified Personnel**

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

#### Proper use of Siemens products

Note the following:

#### /!\WARNING

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

#### Trademarks

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#### **Disclaimer of Liability**

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

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## Preface

## Range of validity

These references are for SIMOTION V4.3.

## **SIMOTION Documentation**

An overview of the SIMOTION documentation can be found in this separate list of references.

This documentation is supplied in electronic format with SIMOTION SCOUT.

The SIMOTION documentation consists of ten documentation packages containing SIMOTION documents and documents on related systems, e.g. SINAMICS.

The documentation packages are organized according to functionality and contents.

## The following documentation packages are available for SIMOTION 4.3:

- SIMOTION Engineering System Handling
- SIMOTION System and Function Descriptions
- SIMOTION Service and Diagnostics
- SIMOTION IT
- SIMOTION Programming
- SIMOTION Programming References
- SIMOTION C
- SIMOTION P
- SIMOTION D
- SIMOTION Supplementary Documentation

## You will find further documents at:

- SIMOTION application (Page 25) This contains an overview of the SIMOTION applications
- Ordering information (Page 29) Information about catalogs for SIMOTION and other components
- Additional information for SIMOTION (Page 31)

## Hotline and Internet addresses

## Additional information

Click the following link to find information on the the following topics:

- Ordering documentation/overview of documentation
- Additional links to download documents
- Using documentation online (find and search in manuals/information)

http://www.siemens.com/motioncontrol/docu

Please send any questions about the technical documentation (e.g. suggestions for improvement, corrections) to the following e-mail address: docu.motioncontrol@siemens.com

## My Documentation Manager

Click the following link for information on how to compile documentation individually on the basis of Siemens content and how to adapt this for the purpose of your own machine documentation:

http://www.siemens.com/mdm

## Training

Click the following link for information on SITRAIN - Siemens training courses for automation products, systems and solutions:

http://www.siemens.com/sitrain

## FAQs

Frequently Asked Questions can be found in SIMOTION Utilities & Applications, which are included in the scope of delivery of SIMOTION SCOUT, and in the Service&Support pages in **Product Support**:

http://support.automation.siemens.com

## **Technical support**

Country-specific telephone numbers for technical support are provided on the Internet under **Contact**:

http://www.siemens.com/automation/service&support

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## **SIMOTION Documentation**

## Overview of the SIMOTION documentation

The complete SIMOTION documentation is divided into various documentation packages and is contained on the SCOUT Documentation, Utilities & Applications DVD.

An initial overview is available as a short system overview for SIMOTION in the SIMOTION Description of System and Function Descriptions (Page 9) documentation package in the Basic Functions function manual.

Terms and abbreviations from the SIMOTION environment are described in the **SIMOTION Glossary** (see SIMOTION Engineering System Handling (Page 8) documentation package).

The search across all PDF documents of a selected language is possible using the **Start.pdf** or via the **SIMOTION\_Index.pdx** contained in the documentation directory of the respective language.

Extensive information especially for the programming and commissioning of a **SIMOTION D** is contained in the commissioning manuals on the (SIMOTION D (Page 18) documentation package).

## Example for beginners

Getting Started in the online help is recommended as an introduction to the configuration with SIMOTION.

A more detailed overview with appropriate instructions can be found in an example for beginners in the Utilities & Applications. The **SIMOTION Utilities & Applications** are contained on the **SCOUT** 

Documentation, Utilities & Applications DVD.

You start the navigation by opening the **Start\_Utilities&Applications.html** in the **Utilities\_Applications** directory. The example with a comprehensive documentation can be found at **Examples > Example for beginners**.

1.1 SIMOTION Engineering System Handling

## 1.1 SIMOTION Engineering System Handling

The documentation package contains documents that describe the handling of the SIMOTION Engineering System and the SIMOTION Cam Tool option package.

The documents of this documentation package are contained in the <u>1\_Engineering\_system\_handling</u> directory.

SIMOTION SCOUT, Configuration Manual Describes SIMOTION SCOUT, the SIMOTION engineering system	Edition 02/2012
SIMOTION Terms and Abbreviations, Glossary	Edition 11/2010
SIMOTION CamTool, Configuration Manual Describes the easy-to-use cam tool	Edition 11/2010

1.2 SIMOTION System and Function Descriptions

## 1.2 SIMOTION System and Function Descriptions

This documentation package contains descriptions for the basic functions of the SIMOTION system as well as the explanations for the technology objects (TO) and the communications topic.

The documents of this documentation package are contained in the 2\_Description\_of\_system\_and\_functions directory.

Note

Additional information on system functions, system variables and configuration data is contained in the SIMOTION Programming - References (Page 14) documentation package.

#### SIMOTION Runtime Basic Functions, Function Manual

Edition 02/2012

This documentation provides a short system overview for SIMOTION and describes the basic structure and the programming of the technology objects. The runtime system and the memory concept of the SIMOTION controllers are also described.

## Motion Control, Electric/Hydraulic Axis and External Encoder Technology Edition 02/2012 Objects, Function Manual

Describes the operating principles of the speed, positioning, and hydraulic axes technology objects and the external encoder.

## Motion Control, Synchronous Operation and Cam Technology Objects, Edition 02/2012 Function Manual

Describes the operating principles of the gearing and camming technology objects.

Motion Control, Path Interpolation Technology Objects, Function Manual Edition 02/2012 Describes the functionality of the technology objects for path interpolation.

Motion Control Output Cam and Measuring Input, Function Manual	Edition 02/2012
Describes the operating principles of the output cam, cam track, and measuring input technology objects.	
Motion Control, Supplementary Technology Objects, Function Manual	Edition 02/2012
Describes the operating principles of the fixed gear, addition object,	
formula object, sensor, controller object and temperature controller	
technology objects.	

1.2 SIMOTION System and Function Descriptions

Motion Control, Basic Functions for Modular Machines, Description of Functions	Edition 02/2012
Describes the modular machines functionality in the SIMOTION and SINAMICS system.	
SIMOTION Communication, System Manual	Edition 02/2012
Describes the communications capabilities for SIMOTION systems and also to devices outside the SIMOTION family, in particular, SIMATIC.	
SIMATIC Communication with SIMATIC, System Manual	Edition 09/2006
Document identification number: EWA 4NEB 710 6075-01 04	
SIMATIC PROFINET System Description, System Manual Document identification number: A5E00298287-05	Edition 07/2010

SIMOTION Documentation

1.3 SIMOTION Service and Diagnostics

## 1.3 SIMOTION Service and Diagnostics

This documentation package contains all information about the service and diagnostic functions of the system.

The documents of this documentation package are contained in the <u>3\_Service\_and\_Diagnosis</u> directory.

<b>Overview of Service and Diagnostics Options, Product Information</b> Overview of the options for system diagnostics for SIMOTION devices and references to other manuals and online helps.	Edition 11/2010
<b>Technology Packages Alarms, Diagnostics Manual</b> Contains information on the alarms for the <b>Cam, Path, Cam_ext</b> and <b>TControl</b> technology packages. The alarms are organized numerically under the technology packages (TP) according to technology object (TO).	Edition 02/2012
<b>Upgrading SIMOTION Devices, Operating Instructions</b> Describes a simple way of exchanging the configuration or firmware of one or more SIMOTION devices using the Device Update tool.	Edition 02/2012
Task Trace, Function Manual Describes the structure and handling of the SIMOTION Task Trace.	Edition 11/2010
SIMOTION Project Comparison, Function Manual Describes the SCOUT Project Comparison function with which you can compare objects within a project or with objects from other projects (offline) or objects of the project with the connected target system	Edition 02/2012

(online).

1.4 SIMOTION IT

## 1.4 SIMOTION IT

This documentation package contains all information about the Web functions for SIMOTION IT with which the machine manufacturer and user can perform commissionings as well as service and diagnostic tasks without engineering tools.

The documents of this documentation package are contained in the <u>3\_SIMOTION\_IT</u> directory.

## SIMOTION IT Diagnosis and Configuration, Diagnostics Manual Edition 02/2012

Describes the diagnosis of the SIMOTION devices via the integrated Web server.

Access is made with a standard browser (e.g. Firefox) via the IP address of the SIMOTION device. You can use the standard diagnostic pages or your own HTML pages for access.

## SIMOTION IT Programming and Web Services, Programming Manual Edition 02/2012

Describes the access to the diagnostic functions with Web services. This function package comprises a Web service that permits the connection of applications to a controller via the Internet and, for example via OPC XML-DA, access to data and operating states in the SIMOTION device.

Commands are transmitted via the SOAP (Simple Object Access Protocol) communication protocol.

Additional description of the Trace via SOAP (TVS) function package that permits variables from the environment of the SIMOTION variable provider to be recorded.

## SIMOTION IT Virtual Machine and Servlets, Programming Manual

Edition 02/2012

The Jamaica Virtual Machine (JamaicaVM) provides a runtime system with which Java applications can be executed on the SIMOTION device. It is an implementation of the **Java Virtual Machine Specification**. The Servlets section of the documentation describes the use of servlets in a Web container of a SIMOTION device.

SIMOTION Documentation

1.5 SIMOTION Programming

## 1.5 SIMOTION Programming

This documentation package contains documents with the descriptions for the various programming languages and editors.

The documents of this documentation package are contained in the  $\underline{3Programming}$  directory.

SIMOTION ST Structured Text Programming and Operating Manual Describes the text-based Structured Text SIMOTION programming language.	Edition 02/2012
SIMOTION MCC Motion Control Chart Programming and Operating Manual	Edition 02/2012
Describes the graphics-based SIMOTION Motion Control Chart programming language.	
SIMOTION LAD/FBD Programming and Operating Manual	Edition 02/2012
Describes the graphics-based Ladder Diagram (LAD) and Function Block Diagram	
(FBD) SIMOTION programming languages.	
SINAMICS/SIMOTION DCC Editor Description, Programming and Operating Manual	Edition 02/2012
Describes the graphics-based Drive Control Chart Editor (DCC editor) based on CFC. Graphics-based configuration of SIMOTION controllers	

and SINAMICS drives is possible.

1.6 SIMOTION Programming - References

## 1.6 SIMOTION Programming - References

The following documents are reference lists required for the programming of the **Cam**, **Path**, **Cam\_ext** and **TControl** technology packages as well as the **SIMOTION** devices.

The documents of this documentation package are contained in the <u>3\_Programming\_reference\_lists</u> directory.

System Functions/Variables Devices, List Manual Describes the system functions/variables for the SIMOTION C, P and D hardware platforms.	Edition 02/2012
<ul> <li>Technology Packages System Functions, List Manual</li> <li>Describes the system functions for the Cam_ext and TControl technology packages (TP).</li> <li>TP Cam and TP Path are part of TP Cam_ext.</li> <li>The List Manual is organized based on the structure of the SIMOTION SCOUT command library.</li> <li>The command library is located in the tab of the same name in the projet navigator of SIMOTION SCOUT. The system functions are listed in the PLCopen and Technology folders there.</li> <li>The list of reserved identifiers can be found in the SIMOTION Basic Functions manual (Page 9)(see SIMOTION System and Function Description document package).</li> </ul>	
Technology Packages Configuration Data, List Manual Describes the configuration data for the Cam, Path, Cam_ext and TControl technology packages. The configuration data is listed as follows: Under the technology packages (TP), in alphabetical order according to technology object (TO).	Edition 02/2012
Technology Packages System Variables, List Manual Describes the system variables for the Cam, Path, Cam_ext and TContr technology packages. The system variables are listed as follows: Under the technology packages (TP), in alphabetical order according to technology object (TO). The following documents contain descriptions of other function blocks fre SCOUT command library.	
<b>PLCopen Blocks, Function Manual</b> Describes the PLCopen blocks for motion control programming from a cyclic PLC viewpoint.	Edition 02/2012

SIMOTION Documentation

1.6 SIMOTION Programming - References

## SINAMICS/SIMOTION Description of the Standard DCC Blocks, Function Edition 02/2012 Manual

Description of the standard DCC blocks for SIMOTION and SINAMICS.

## **Drive connection**

I/O

Standard Function for SINAMICS S120 Line Modules, Function Man Describes the function blocks for the activation and deactivation of th SINAMICS S120 Line Modules with DRIVE-CLiQ connection.	
Supplement to the SIMODRIVE POSMO A Positioning Motor, Functi Manual	on Edition 03/2009
Describes the function blocks for the communication between the SIMOTION system and the distributed SIMODRIVE POSMO A positioning motor.	
Reading and Writing Drive Data, Function Manual	Edition 08/2008
Describes the function block for reading and writing drive data for SIMOTION.	
SIMODRIVE	
The documents for this topic are available at:	
Additional information for SIMOTION (Page 31)	
Supplement to the CP 340 and CP341 Modules, Function Manual Describes the function blocks for the data exchange between a SIMOTION device and communication processors.	Edition 11/2010
Supplement to the FM 350-1, FM 350-2 and FM 352 Modules, Funct Manual	ion Edition 11/2010
Describes the function blocks for the communication between the SIMOTION system and the FM 350-1, FM 350-2 and FM 352 module	es.

## Supplement to the ET 200S 1SI Serial Interface Module, Function Manual Edition 03/2009

Describes the function blocks for the communication between the SIMOTION system and the ET 200S 1SI serial interface.

1.6 SIMOTION Programming - References

Supplement to the ET 200S Frequency Converter, Function ManualEdition 11/2010Describes the function block for controlling the ET 200S frequency converter.Edition 11/2010	
Supplement to the Command Interface for AS-Interface Master Modules, Edition 03/2009 Function Manual Describes the function block for operation of the command interface of the AS-Interface master modules.	
Standard Function for ASIsafe Safety Monitors, Function ManualEdition 03/2009Describes the function blocks for reading out the diagnostic information of the ASIsafe safety monitor.	
Standard Functions for RFID Systems, Function ManualEdition 08/2008Describes the function blocks for the data exchange between the SIMOTION system and RFID systems according to the standard profile.	
Supplement to the SIWAREX FTA Weighing Module, Function ManualEdition 11/2010Describes the function block for controlling and assigning parameters for the SIWAREX FTA Weighing Module.Edition 11/2010	
SIMATIC The documents for this topic are available at: Additional information for SIMOTION (Page 31)	

## Controller

Basic Control, Function Manual Describes the function blocks of the Basic Control software. Edition 08/2008

## 1.7 SIMOTION C

The documentation package contains the description for the **SIMOTION C** hardware platform.

The document of this documentation package is contained in the 5\_SIMOTION\_C directory.

The system functions and variables for the SIMOTION C hardware platform are described in the System Functions/Variables Devices, List Manual. (See SIMOTION Programming - References (Page 14) documentation package).

## SIMOTION C, Operating Instructions

Edition 02/2012

Describes the controller versions of the SIMOTION product family.

## 1.8 SIMOTION P

This documentation package contains the descriptions for the **SIMOTION P** hardware platform.

The documents of this documentation package are contained in the <u>5\_SIMOTION\_P</u> directory.

The system functions and variables for the SIMOTION P hardware platform are described in the System Functions/Variables Devices, List Manual.

(See SIMOTION Programming - References (Page 14) documentation package).

SIMOTION P320-3 and Panel Fronts, Manual Describes the PC-based hardware of the SIMOTION product family.	Edition 02/2012
SIMOTION P320-3 and Panel Fronts, Commissioning and Hardware Installation Manual	Edition 02/2012
Describes the PC-based hardware of the SIMOTION product family.	
SIMOTION P350-3 and Panel Fronts, Product Manual	Edition 02/2012
Describes the PC-based hardware of the SIMOTION product family.	
SIMOTION P350-3 and Panel Fronts Commissioning and Hardware Installation Manual	Edition 02/2012
Describes the PC-based hardware of the SIMOTION product family.	

## 1.9 SIMOTON D

## 1.9.1 Documentation for the SIMOTION D hardware platform

The following documents contain the descriptions for the SIMOTION D hardware platform.

The documents of this documentation package are contained in the  $5SIMOTION_D$  directory.

The system functions and variables for the SIMOTION D hardware platform are described in the System Functions/Variables Devices, List Manual. (See SIMOTION Programming - References (Page 14) documentation package).

SIMOTION D4x5, Manual Describes the drive-based hardware of the SIMOTION product family.	Edition 02/2012
SIMOTION D4x5, Commissioning and Hardware Installation Manual Describes the drive-based hardware of the SIMOTION product family.	Edition 02/2012
SIMOTION D4x5-2, Manual Describes the drive-based hardware of the SIMOTION product family.	Edition 02/2012
SIMOTION D4x5-2, Commissioning and Hardware Installation Manual Describes the drive-based hardware of the SIMOTION product family.	Edition 02/2012
SIMOTION D410, Manual Describes the hardware for the SIMOTION modular drive system for single axes.	Edition 02/2012
SIMOTION D410, Commissioning Manual Describes the hardware for the SIMOTION modular drive system for single axes.	Edition 02/2012
SIMOTION D410-2, Manual	Edition 02/2012
SIMOTION D410-2, Commissioning and Hardware Installation Manual	Edition 02/2012

## 1.9.2 Documentation for SINAMICS Integrated

The following documents contain the descriptions for SINAMICS Integrated.

The documents for SINAMICS Integrated are contained in the <u>5\_SIMOTION\_D</u> directory.

With **SIMOTION D**, the **SIMOTION** PLC and motion control functionality as well as the **SINAMICS S120** drive software run on a shared control hardware.

The integrated **SINAMICS Integrated** drive as well as further drive components are described in the documentation for **SINAMICS S120**:

- For SIMOTION D4xx, the SINAMICS Integrated is based on SINAMICS firmware Version 2.x
- For SIMOTION D4xx-2, the SINAMICS Integrated is based on SINAMICS firmware Version 4.x

The documents for SINAMICS can also be supplied individually with the appropriate order number as hard copy.

## SINAMICS Integrated, Firmware Version 2.x

SINAMICS S120 Commissioning, Commissioning Manual This commissioning manual contains all information relevant for the commissioning after installation and wiring.	Edition 10/2008
Order number: 6SL3097-2AF00-0BP8	
SINAMICS S120 Drive Functions, Function Manual	Edition 10/2008
This function manual contains all the relevant information about individual drive functions: Description, commissioning and integration in the drive system.	
Order number: 6SL3097-2AB00-0BP5	
SINAMICS S120 Safety Integrated, Function Manual	Edition 10/2008
Order number: 6SL3097-2AR00-0BP2	
SINAMICS S120/S150, List Manual	Edition 10/2008
This List Manual contains all parameters, function block diagrams and faults/warnings for the product/system as well as their meaning and setting options.	
Order number: 6SL3097-2AP00-0BP7	

# SINAMICS S120 Control Units and Supplementary System Components, Edition 10/2008 Manual

This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options.

Order number: 6SL3097-2AH00-0BP5

SINAMICS S120 Booksize Power Units, Manual This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options. Order number: 6SL3097-2AC00-0BP7	Edition 10/2008
SINAMICS S120 Booksize Cold Plate Power Units, Manual This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options. Order number: 6SL3097-2AJ00-0BP4	Edition 03/2007
SINAMICS S120 Chassis Power Units, Manual Order number: 6SL3097-2AE00-0BP3	Edition 10/2008
SINAMICS S120 Liquid Cooled Chassis Power Units, Manual Order number: 6SL3097-2AM00-0BP5	Edition 10/2008

## References

Further manuals can be found under Product Support > SINAMICS S High-Performance Converter (http://support.automation.siemens.com/WW/view/en/13305690/133300).

## SINAMICS Integrated, Firmware Version 4.x

SINAMICS S120 Getting Started This document provides information on getting started for the first-time user as well as references to additional information.	Edition 11/20
Order number: 6SL3097-4AG00-0BP0	
SINAMICS S120 Commissioning, Commissioning Manual This commissioning manual contains all information relevant for the	Edition 01/20
commissioning after installation and wiring. Order number: 6SL3097-4AF00-0BP1	
SINAMICS S120 Drive Functions, Function Manual This function manual contains all the relevant information about individual drive functions: Description, commissioning and integration in the drive system.	Edition 01/20
Order number: 6SL3097-4AB00-0BP2	
SINAMICS S120 Safety Integrated, Function Manual Order number: 6SL3097-4AR00-0BP3	Edition 01/20
SINAMICS S120/S150, List Manual	Edition 01/20
This List Manual contains all parameters, function block diagrams and faults/warnings for the product/system as well as their meaning and setting options.	
Order number: 6SL3097-4AP00-0BP3	
SINAMICS S120 Control Units and Supplementary System Components, Manual	Edition 01/20
This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options.	
Order number: 6SL3097-4AH00-0BP2	
SINAMICS S120 Booksize Power Units, Manual	Edition 01/20
This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options. Order number: 6SL3097-4AC00-0BP4	
SINAMICS S120 Chassis Power Units, Manual	Edition 01/20

# SINAMICS S120 Liquid Cooled Chassis Power Units, Manual Order number: 6SL3097-4AM00-0BP2

Edition 01/2012

## SINAMICS S120 AC DRIVE, Manual

Edition 01/2012

This product manual contains all information required by the user prior to powering up the system component the first time up to the intended use of the system component, including technical data, interfaces, dimension drawings, characteristic curves and application options. **Order number: 6SL3097-4AL00-0BP2** 

## References

Further manuals can be found under Product Support > SINAMICS S High-Performance Converter (http://support.automation.siemens.com/WW/view/en/13305690/133300).

SIMOTION Documentation

1.10 SIMOTION Supplementary Documentation

## 1.10 SIMOTION Supplementary Documentation

This documentation package contains product information as well as the hardware descriptions for components that are operated together with SIMOTION (e.g. ADI4).

The documents of this documentation package are contained in the 4\_Additional\_documentation directory.

SIMOTION Terminal Modules TM15 / TM17 High Feature, Commissioning Manual	Edition 02/2012
This document describes the functionality and use of the TM15 and TM1 <sup>-</sup> High Feature Terminal Modules.	7
SIMOTION Terminal Modules TM15/TM17 High Feature, Manual	Edition 11/2010
This document describes the functionality and use of the TM15 and TM1 <sup>7</sup> High Feature Terminal Modules.	7
ADI4 - Analog Drive Interface for Four Axes, Manual	Edition 03/2010
This document describes the functionality and use of the ADI4 - Analog Drive Interface with which as many as four drives can be operated with the analog setpoint interface on the isochronous PROFIBUS DP.	
SIMATIC Distributed I/Os IM 174 PROFIBUS Module, Manual	Edition 01/2009
This document describes the standard functionality of the IM 174 module an interface module with which as many as four drives can be operated with the analog setpoint interface with one TTL or SSI encoder per axis on the isochronous PROFIBUS DP.	,
SIMATIC NET (XP/Win7) for SIMOTION, Product Information	Edition 02/2012
This document describes the open OPC interface for access to various communication peers via SIMATIC NET.	

SIMOTION Documentation

1.10 SIMOTION Supplementary Documentation

## **SIMOTION Application**

Numerous applications are available for SIMOTION that already provide a solid basic framework or predefined industry-specific configurations. With the help of the provided documentation, the applications can be easily used, adapted and extended for the associated application.

You can find the following applications in **SIMOTION Utilities & Applications**. SIMOTION Utilities & Applications is provided as part of the SIMOTION SCOUT scope of delivery.

SIMOTION Flying Saw Flying saw

SIMOTION Rotary Knife Cross cutter

SIMOTION Winder

Winder

SIMOTION Automatic Splice Flying splice with gluing together of material webs

SIMOTION Top Loading Solution for flexible handling applications

SIMOTION Easy Project project generator

**SIMOTION Utilities & Applications** also contains the SIMOTION Easy Project generator.

**SIMOTION Easy Project** makes it easy and fast for basic functions required in practically every application to be included in a new or existing project.

## Additional applications

All the complete SIMOTION applications can be found on the Internet at: SIMOTION industry-sector solutions (http://www.Siemens.com/simotion/solutions)

The documents are supplied with the associated application or on request. Please contact your Siemens contact regarding this. A selection of the applications is listed below:

## **SIMOTION Easy Basics**

Collection of standardized SIMOTION basic functionality (also see Product Support > Motion Control System SIMOTION > SIMOTION Easy Basics (http://support.automation.siemens.com/WW/view/en/43192804))

## **SIMOTION Baggers and Wrappers**

Solution for tubular bagging machines

## **SIMOTION Intelligent Infeed**

The application for automatic product infeed with contact-free metering of the products

## **SIMOTION Message Handling**

The application for quick integration of the message handling in an existing SIMOTION project

## **SIMOTION Cartoner**

Solution for packaging machines

## SIMOTION Axis Function Block

Solution for controlling motion control basic function.

## SIMOTION Startup Check

The application for the startup check of devices and I/O modules in the SIMOTION system

## **SIMOTION Intelligent Belt**

Solution for the automatic operation of an intelligent belt (dual tension) as well as the provision of functions such as homing, positioning and jogging

## SIMOTION/SIMATIC Ethernet Communication TCP/IP LCom

TCP/IP communication for SIMOTION and SIMATIC for data blocks up to 64 KB time synchronization

## SIMOTION/SIMATIC OMAC V3

This software library provides a user-friendly basis for the configuration of an OMAC-compliant mode manager and a data interface for SIMOTION or SIMATIC

## SIMOTION SimoPress

The application for automating mechanical universal presses with SIMOTION

## SIMOTION SimoTrans

Solution for electronic transfer systems in the metal forming technology

## SIMOTION SimoRoll

Solution for electronic roll feed in the metal forming technology

## SIMOTION SimoFeed Solution for press linking with feeder in the metal forming technology

## SIMOTION IME5000 (all-electric injection molding) Solution for electric injection molding machines

## SIMOTION Print Standard Application example for various printing machine types

## SIMOTION Traverser Application Traverser

## SIMOTION Weaving Application Solution for weaving machines

## **SIMOTION Ring Spinning Application**

Solution for ring spinning machines

## SIMOTION Rowing Frame Application

Solution for flyer control in the spinning process

SIMOTION Application

# SIMOTION Ordering Information

Catalogs for SIMOTION and other components

SIMOTION, SINAMICS S120 and Motors for Production Machines, PM 21 Catalog Ordering information	Edition 2011
Order number: E86060-K4921-A101-A2	
SINUMERIK & SIMODRIVE, Catalog NC 60, Automation Systems for Machine Tools	Edition 2009
Ordering information	
Order number: E86060-K4460-A101-B3	
SINUMERIK & SINAMICS, Catalog NC 61, Equipment for Machine Tools	Edition 2010
Ordering information	
Order number: E86060-K4461-A101-A3	
SIMATIC Products for Totally Integrated Automation and Micro Automation, Catalog ST 70,	Edition 2011
Ordering information	
Order number: E86060-K4670-A101-B3	
SIMATIC NET, Industrial Communication, Catalog IK PI,	Edition 2012
Ordering information	
Order number: E86060-K6710-A101-B7	

## Interactive catalogs

Products for Automation and Drives

Edition 10/2011

Annual update in October, can be ordered at: Product catalog CA 01 (http://www.automation.siemens.com/mcms/topics/en/ik/Pages/Default .aspx) Order number: E86060-D4001-A500-D1

/Mall/ IA&DT Mall, Catalog and Online Ordering System Industry Mall (http://www.siemens.com/industrymall)

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# Additional information for SIMOTION

The following documents contain advanced information about SIMOTION.

SIMATIC HMI, ProTool Configuration Communication for Windows-based Systems,	
SIMATIC Manual Collection, incl. SIMATIC HMI	
Order number: 6ES7 998-8XC01-8YE0	
SIMATIC NET CP 343-2 / CP 343-2 P AS-Interface Master, Manual	Edition 08/2008
Siemens support: Entry ID 5581657	
(http://support.automation.siemens.com/WW/view/en/5581657)	
Document identification number: C79000-G8900-C149-04	
SIMATIC NET DP/AS-Interface Link 20E, Manual	Edition 11/2002
Siemens support: Entry ID 5281638	
(http://support.automation.siemens.com/WW/view/en/5281638)	
Document identification number: C79000-G8900-C138-04	
SIMATIC NET DP/AS-Interface Link Advanced, Manual	Edition 03/2008
Siemens support: Entry ID 22710305	
(http://support.automation.siemens.com/WW/view/en/22710305)	
Document identification number: C79000-G8900-C209-03	
SIMATIC NET IE/AS-Interface Link PN IO, Manual	Edition 03/2008
Siemens support: Entry ID 22712154	
(http://support.automation.siemens.com/WW/view/en/22712154)	
Document identification number: C79000-G8900-C216-03	
SIMATIC ET 200M Distributed I/O Device, Operating Instructions	Edition 12/2008
Siemens support: Entry ID 1142798	
(http://support.automation.siemens.com/WW/view/en/28714759)	
Document identification number: EWA-4NEB780600601-08	
SIMATIC S7-300 CP 340 Point-to-Point Connection, Installation and Parameter Assignment, Manual	Edition 04/2011
Siemens support: Entry ID 1137332	
(http://support.automation.siemens.com/WW/view/en/1137332)	
Document identification number: A5E00369891-03	

SIMOTION References - Overview of the SIMOTION Documentation Catalog, 02/2012

SIMATIC S7-300 CP 341 Point-to-Point Connection, Installation and Parameter Assignment, Manual	Edition 04/2011
Siemens support: Entry ID 1117397	
(http://support.automation.siemens.com/WW/view/en/1117397)	
Document identification number: A5E02191070-03	
SIMATIC S7-300 FM 350-1 Counter Module, Manual	Edition 05/2011
Siemens support: Entry ID 1086726 (http://support.automation.siemens.com/WW/view/en/1086726)	
Document identification number: A5E03539812-01	
SIMATIC S7-300 FM 350-2 Counter Module, Manual	Edition 05/2011
Siemens support: Entry ID 1105178	
(http://support.automation.siemens.com/WW/view/en/1105178)	
Document identification number: A5E00271803-03	
SIMATIC S7-300 FM 352 Electronic Cam Controller	Edition 05/2011
Installation and Parameter Assignment, Operating Instructions	
Siemens support: Entry ID 2103044	
(http://support.automation.siemens.com/WW/view/en/28714759)	
Document identification number: A5E01071719-03	
SIMATIC Distributed I/O ET 200S Interface Module IM151-1 HIGH FEATURE (6ES7151-1BA02-0AB0), Manual	Edition 03/2008
Document identification number: A5E01075974-02	
SIMATIC ET 200S Distributed I/Os IM151-3 PN HIGHFEATURE Interface Module (6ES7151-3BA23-0AB0), Manual	Edition 08/2010
Document identification number: A5E01584256-04	
SIMATIC ET 200S Distributed I/O System, Operating Instructions	Edition 08/2008
Siemens support: Entry ID 1144348	
(http://support.automation.siemens.com/WW/view/en/1144348)	
Document identification number: A5E00515770-06	
SIMATIC ET 200S Serial Interface Modules, Operating Instructions	Edition 03/2009
Siemens support: Entry ID 9260793	
(http://support.automation.siemens.com/WW/view/en/9260793)	
Document identification number: A5E00124880-05	
SIMATIC ET 200S FC Frequency Converter, Operating Instructions	Edition 06/2007
Siemens support: Entry ID 26291825	
(http://support.automation.siemens.com/WW/view/en/26291825)	

Document identification number: A5E01100755A AA	
SIMATIC ET 200S FC Frequency Converter ICU24(F) Control Units, List Manual	Edition 06/2007
Siemens support: Entry ID 26493107	
(http://support.automation.siemens.com/WW/view/en/26493107)	
Document identification number: A5E00348653A AB	
SIMATIC S7-300 Automation System, Module Data, Manual	Edition 03/2011
Siemens support: Entry ID 8859629	
(http://support.automation.siemens.com/WW/view/en/8859629)	
This manual is part of the documentation packages with the following	
Order number: 6ES7 398-8FA10-8AA0	
Document identification number: A5E00105504-07	
SIMATIC Logon, Configuration Manual	Edition 08/2008
Document identification number: A5E00496671-05	
EMC Installation Guide, Configuration Manual (HW)	Edition 03/2004
Order number: 6FC5 297-0AD30-0AP2	
SIMODRIVE POSMO A	Edition 10/2007
Distributed Positioning Motor on the PROFIBUS DP, User Manual	
Siemens support: Entry ID 28714759	
(http://support.automation.siemens.com/WW/view/en/28714759)	
Order number: 6SN2197-0AA00-1AP1	
SIMODRIVE POSMO A	Edition 04/2002
Hardware Installation Instructions	
Siemens support: Entry ID 28821238	
(http://support.automation.siemens.com/WW/view/en/28821238)	
Order number: 6SN2197-0AA00-0AP	
SIMODRIVE 611 Universal / E, Description of Functions	Edition 09/2005
Closed-loop control component for speed control and positioning	
Order number: 6SN1197-0AB20-1AP3	
SIMOVERT MASTERDRIVES Motion Control, Compendium (AI)	Edition 12/2007
SIMOVERT MASTERDRIVES Vector Control	Edition 2003/2004
Single and multi-motor drives 0.55 kW to 2300 kW	
Ordering information	

Order number: E86060-K5165-A101-A3 Distributed Servo Drives, User Manual SIMODRIVE POSMO SI, SIMODRIVE CD/CA Order number: 6SN2 197-0AA20-0AP7	Edition 10/2004
SINUMERIK 840D/840Di/810D, Operator Components, Manual order number: 6FC5297-7AA50-0AP0	Edition 04/2004
SIRIUS AS-Interface Safety Monitor IEC 61508/EN 954-1, Operating Instructions	Edition 2009
Siemens support: Entry ID 12265037 ( <u>http://support.automation.siemens.com/WW/view/en/24432172</u> )	
AS-Interface Safety Monitor, Operating Instructions Siemens support: Entry ID 24432172 (http://support.automation.siemens.com/WW/view/en/24432172) Document identification number: GWA 4NEB 333 1557 01 DS02 Order number: 3RK1701-2MB21-0AA0	Edition 09/2008
ASIMON V3 Configuration Software for AS-Interface Safety Monitor,	Edition 09/2008
Programming and Operating Manual	
Configuration Software for Microsoft® Windows®	
Siemens support: Entry ID 24434774	
(http://support.automation.siemens.com/WW/view/en/24434774)	
Document identification number: GWA 4NEB 333 1558 01 DS 02	
SIMATIC Sensors RFID Systems ASM 456 Interface Module, Operating Instructions	Edition 10/2009
Siemens support: Entry ID 32629442	
(http://support.automation.siemens.com/WW/view/en/32629442) Order number: J31069-D0162-U001-A4-0018	
Order Humber: 331003-D0102-0001-A4-0018	
SIWAREX FTA Weighing Electronics for Independent Weighing, Manual	Edition 06/2010
Siemens support: Entry ID 17970155	
(http://support.automation.siemens.com/WW/view/en/17970155)	
Document identification number: A5E00452858A	