

SIEMENS

Energy Management for PCS7


SIMATIC PCS 7 powerrate


Manual


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Safety guidelines

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. The notices shown below are graded according to the degree of danger.

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

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

 CAUTION
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 corresponding 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 device/system may only be set up and used in conjunction with this documentation. Commissioning and operation of a device/system may only be performed by **qualified personnel**. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission, ground, and label devices, systems, and circuits in accordance with established safety practices and standards.

Prescribed usage

Note the following:

 WARNING
This device may only be used for the applications described in the catalog or the technical description and only in conjunction with devices or components from other manufacturers which have been approved or recommended by Siemens. Correct, reliable operation of the product requires proper transport, storage, positioning, and assembly as well as careful operation and maintenance.

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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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1 Introduction

1.1 General

The SIMATIC PCS 7 powerrate (pre for short) V2.0 software package can be used in PCS 7 versions V6.1 SP1 and V7.0 SP1 and contains the following components:

- Block library with:
 - o PRE_SYNC: Time synchronization
 - o PRE_SUM: PCS 7 block for acquiring and processing energy
 - o PRE_FIFO_DATA: Contains the FIFO data
 - o PRE_AR_DATA: Data interface for sending the archive data
 - o PRE_AR_SND: Archives measured values
 - o PRE_LMGM: Load management
 - o PRE_AS_SEND: Send block for AS-to-AS communication
 - o PRE_AS_RECV: Receive block for AS-to-AS communication
 - o PRE_SND_H: Send block for AS-4xxH to AS-400 communication
 - o PRE_RCV_H: Receive block for AS-4xxH to AS-400 communication
 - o PRE_BS: Calls the BSEND system block
 - o PRE_BR: Calls the BRCV system block
 - o PRE_CALC: Calculation block
 - o PRE_FIFO_IO: Organizes the FIFO buffer
 - o CFC templates for using the blocks
 - o User objects and operating blocks for operating and observing energy acquisition data and load management on the OS
- Excel Add-In with the functions:
 - o Reading the archive data from the WinCC Tag Logging archive to Excel
 - o Further processing of archive data
 - o Output of archive data in the form of Excel reports
- Online help in German and English

1.2 Installing the library

To start the installation, please insert the CD in the CD-ROM drive on your PG/PC and launch the "setup.exe" program. All the other information you need will be provided during the installation process. Please also read the information in the readme file.

2 Information about the library

2.1 Overview of the blocks

The library contains the following blocks:

Name	Function	Number
PRE_SYNC	Time synchronization	FB1060
PRE_SUM	PCS 7 block for acquiring and processing energy	FB1061
PRE_FIFO_DATA	FIFO buffer	FB1062
PRE_AR_DATA	Data interface for sending the archive data	FB1063
PRE_AR_SND	Archives measured values in the WinCC Tag Logging archive	FB1064
PRE_LMGM	Load management	FB1065
PRE_AS_SEND	Send block for AS-to-AS communication	FB1070
PRE_AS_RECV	Receive block for AS-to-AS communication	FB1071
PRE_SND_H	Send block for AS-4xxH to AS-400 communication	FB1072
PRE_RCV_H	Receive block for AS-4xxH to AS-400 communication	FB1073
PRE_BS	Calls the BSEND system function block (is used internally)	FB1074
PRE_BR	Calls the BRCV system function block (is used internally)	FB1075
PRE_CALC	Calculation block	FC1061
PRE_FIFO_IO	Organizes the FIFO buffer	FC1062
UDT_PRE_FIFO	Data type for check data for organizing the FIFO buffer	UDT1060
UDT_PRE_ITEM	Data type for measured value	UDT1061
UDT_PRE_TLG	Data type for telegram element for sending to the WinCC Tag Logging archive	UDT1062

2.2 Overview of the Excel Add-In

The Excel Add-In contains the following files:

Name	Function
pre_Reporting.xla	<ul style="list-style-type: none"> - Reading the archive data from the WinCC Tag Logging archive to Excel - Further processing of archive data - Output of archive data in the form of Excel reports
pre_Configuration.xls	Configuration file
DataReading.xlt	Template for data storage and reports

