

SIEMENS

SIMATIC

PCS 7 process control system PCS 7 Condition Monitoring Library Readme V9.0 (Online)

Readme




Cybersecurity information	1
Overview	2
Notes on installation	3
New features and changes as compared to previous versions	4
Information on configuration and operation	5
Notes on the documentation	6
Change history of PCS 7 Condition Monitoring Library	7

Version: 2017-05-17 (online)

Legal information

Warning notice system

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

 DANGER
indicates that death or severe personal injury will result if proper precautions are not taken.
 WARNING
indicates that death or severe personal injury may result if proper precautions are not taken.
 CAUTION
indicates that minor personal injury can result if proper precautions are not taken.
NOTICE
indicates that property damage can result if proper precautions are not taken.


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

Qualified Personnel

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

Proper use of Siemens products

Note the following:

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

Trademarks

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

Disclaimer of Liability

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

Table of contents

1	Cybersecurity information	5
2	Overview	7
3	Notes on installation	9
3.1	Scope of delivery	9
3.2	Hardware requirements	9
3.3	Software requirements	9
3.4	Installing PCS 7 Condition Monitoring Library	10
3.5	Uninstalling PCS 7 Condition Monitoring Library.....	11
4	New features and changes as compared to previous versions	13
4.1	Notes on the changes	13
4.2	Version 9.0	13
4.2.1	What's New in Version 9.0?	13
4.2.2	Changes in version 9.0.....	13
4.2.3	Update information for version 9.0.....	13
5	Information on configuration and operation	15
6	Notes on the documentation	17
7	Change history of PCS 7 Condition Monitoring Library	19

Cybersecurity information

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

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

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

For additional information on industrial cybersecurity measures that may be implemented, please visit
<https://www.siemens.com/cybersecurity-industry>.

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

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under
<https://new.siemens.com/cert>.

Overview

Note

Read these notes carefully; they contain information that will be important to you and upgrades to the Condition Monitoring Library.

The information given in this Readme file takes precedence over all the PCS 7 manuals.

Notes on installation

3.1 Scope of delivery

The scope of delivery includes the following library:

- PCS 7 Condition Monitoring Library V9.0
- Partial Stroke Test Library V9.0

Note

The software includes the necessary blocks for the AS as well as the required picture objects, faceplates and functions for the OS.

The setup installs the libraries with the AS blocks as well as the faceplates for operator control and monitoring of plant objects (block icons, group picture).

Faceplates in the project must be updated with the OS project editor, "Basis data" tab.

3.2 Hardware requirements

The installation is subject to the conditions of SIMATIC PCS 7 V9.0.

3.3 Software requirements

The blocks of the Condition Monitoring Library require at least:

- SIMATIC PCS 7 V9.0
- SIMATIC PCS 7 Advanced Process Library V9.0

The blocks of the Partial Stroke Test Library require:

- SIMATIC PCS 7 V9.0
- SIMATIC PCS 7 Advanced Process Library V9.0
- SIMATIC S7 F Systems as of V6.2 Upd 1 (SIMATIC S7 F Systems Library as of V1.3.2)

3.4 Installing PCS 7 Condition Monitoring Library

Note

Before you install the software, older versions of the Condition Monitoring Library must be uninstalled (see section Uninstalling PCS 7 Condition Monitoring Library (Page 11)).

Installation under Windows Server 2016 Standard Edition (64-bit)

Installation via the system setup is not possible. To install Condition Monitoring Library V9.0 on a computer with Windows Server 2016, you need to install the products individually via the corresponding product setup.

You can find the product setups on the DVD in the "86_CML_V90" directory.

This restriction does not apply to update installations. These can also be installed directly via the system setup under Windows Server 2016.

Exit all applications before you start setup.

Place the CD in the drive and start the "Setup" program of the PCS 7 Condition Monitoring Library. You will receive all further information during the installation process.

The library is copied to the same drive on which the PCS 7 basic software is installed. Installation requires about 400 MB of free memory on the hard disk.

After the installation, you can find the blocks in the PCS 7 Condition Monitoring Library in the library "CML_V90" or "PST_V90".

Note

The version of the PCS 7 Condition Monitoring Library you need depends on the version of the PCS 7 Advanced Process Library used in the project. The version of CML must be adapted to match the APL version used and is neither backward nor upward compatible unless specified otherwise in the section "Software requirements".

To update your AS project, copy the blocks to your project. Then perform a block type import.

The following components are installed by the setup:

Condition Monitoring Library – PrDrpMon, PumpMon; VlvMon, SteadyState:

- Library in the directory ...\\SIEMENS\\Step7\\s7libs\\CML_PCS_7
- WinCC faceplates (block icons, group pictures, loops) in the directory ...\\SIEMENS\\WINCC\\options\\pdl\\CML_PCS_7
- WinCC project functions in the directory ...\\SIEMENS\\WINCC\\aplib

Partial Stroke Test Library:

- Function Blocks Partial Stroke Test for PCS 7 in the directory ...\\SIEMENS\\Step7\\s7libs\\PST_PCS_7
- WinCC faceplates (block icons, group pictures, loops) in the directory ...\\SIEMENS\\WINCC\\options\\pdl\\PST_PCS_7

- Global actions in the directory ...\\SIEMENS\\WinCC\\PST
- Report files German in the directory ...\\SIEMENS\\WinCC\\Syslay\\deu
- Report files English in the directory ...\\SIEMENS\\WinCC\\Syslay\\en

- Online help in the directory ...\\SIEMENS\\Step7\\S7LIBS\\CML_PCS_7
- The user documentation in the directory ...\\SIEMENS\\Step7\\S7LIBS\\CML_PCS_7

3.5 Uninstalling PCS 7 Condition Monitoring Library

You have to remove software in accordance with the MS Windows guidelines.

To do so, open the software management in the Windows Control Panel (Windows Start menu: Start → Setting → Control Panel → Software). Select the function "Uninstall or change a program" and then the component you want to uninstall.

3.5 Uninstalling PCS 7 Condition Monitoring Library

New features and changes as compared to previous versions

4

4.1 Notes on the changes

Note

For possible behavior changes in earlier versions, please refer to the readme of the previous version.

4.2 Version 9.0

4.2.1 What's New in Version 9.0?

- The size of the faceplates can be adjusted from 50% to 200% with the scaling factor @APLFaceplateScaleFactor.
- The call button for the batch view is locked in the "Display and operator control interface" area depending on whether a block is used by Batch (BatchID <>0). This affects all blocks with batch capability.

4.2.2 Changes in version 9.0

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4.2.3 Update information for version 9.0

The following applies to the software update from V8.2 to version 9.0:

1.	Make Textual Interconnections	No
2.	Compile AS	Compile changes
3.	Download AS program	Download changes
4.	AS STOP necessary	No
5.	Compile OS	Compile changes

Note

Updating the blocks from the PCS 7 Condition Monitoring Library with TCiR

"Type import - Changed default value" dialog box

- If information on changed internal local default values in the static area is displayed during type import in the dialog box, these changes are not relevant. A complete download in STOP mode is not necessary.
- If information on changed default values is displayed at block I/Os during type import in the dialog box, these new default values must be applied in the "Update Block Types" dialog.

List of blocks

Table 4-1 List of blocks of the Condition Monitoring Library:

Name	Number	Block version	Interface change (AS STOP is not necessary if a CPU 410-5H with TCiR is used)	Code change
PrDrpMon	FB1952	5.0	No	No
PumpMon	FB1950	6.0	No	No
SteadyState	FB1955	5.0	No	No
VlvMon	FB1951	5.0	No	No

Table 4-2 List of blocks of Partial Stroke Test:

Name	Number	Block version	Interface change (AS STOP is not necessary if a CPU 410-5H with TCiR is used)	Code change
F_PST	FB1958	5.0	No	No
F_PST_S	FB1959	5.0	No	No
PST	FB1956	5.0	No	No
PST_Calc	FB1957	5.0	No	No
PST_OrQC	FC449	5.0	No	No
PST_Time	FC448	5.0	No	No

Note

- If "No" is listed in the column "Interface change" and in the column "Code change", only attributes, message texts and/or version number have been changed.
- If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", the interfaces were prepared for a future function.

Information on configuration and operation

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Notes on the documentation

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Change history of PCS 7 Condition Monitoring Library

7

Changes since delivery release of PCS 7 Condition Monitoring Library Readme (online)

Version	Edition	Change
2017-05-17 (online)	05/2017	Delivery status PCS 7 Condition Monitoring Library V9.0
2023-12-18 (ONLINE)	12/2023	Troubleshooting

