

# Welcome to the CEMAT Libraries for SIMATIC PCS 7

## MODULE CEMAT Version V6.0, Issue SP3

This readme file contains important information for the installation and use of the CEMAT libraries.

Please read this information carefully before installation and use of the software.

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## 1. Installation

### 1.1 Scope of supply

With this delivery you received the following product:

#### **CEMAT V6.0 + SP3**

- This package consists of 1 CD

### 1.2 Hardware and Software Requirements

- HW PCS 7 CPU S7-416 or bigger, PCS7 OS Hardware according to actual PCS7 specifications
- SW **PCS 7 V6.0 SP3**

### 1.3 Tips for Installation

- If you already have an installed CEMAT version please remove this version first. (Settings, control panel, Add/Remove Programs)
- If you have the CEMAT version 5.04 delete the file:  
C:\Siemens\WinCC\aplib\FaceplateDesigner\ **pcs7\_opengroupdisplay\_V6\_EW.fct**
- Prior to the start of the setup, close all applications and reboot the PC.
- Open the folder "Installation CEMAT Software" in the main directory with the Explorer

and start the application "Setup.exe". This command installs CEMAT V6.0 SP3, including all entries in Microsoft Windows files. Important operating instructions will be given to you during setup.

- As a standard, the following installation steps are carried out.

- the S7 library ILS\_CEM is copied into the directory **C:\...\Siemens\Step7\s7libs.**

- in case of a project version (Project-ID > 000) additionally the S7 library PRO\_CEM is copied into directory **C:\...\Siemens\Step7\s7libs.**

- Active-X Components for Faceplates are copied into directory **D:\cem\_v6\bin** and registered.

- the project scripts are copied into directories **D:\cem\_v6\WinCC\library** and **D:\cem\_v6\WinCC\pas** (copy later to project directory)

- system scripts are copied into **D:\cem\_v6\WinCC\Siemens**

- Standard pictures are copied into directory **D:\cem\_v6\WinCC\GraCS** (copy later to project directory).

- Bitmap's for background pictures are copied into directory **D:\cem\_v6\bitmap.** Default Bitmaps are stored in zip file.

- Module-, System documentation and Engineering manuals are copied into directory **D:\cem\_v6\docu.**

- Online Help function will be installed in directory **C:\...\Siemens\Step7\s7libs\ILS\_CEM**

## **2 Information about the Product**

### **2.1 What is new compared to the previous version**

#### **CEMAT V6.0**

- Module parameter expanded with attributes for Process object view
- C\_Server, Info dialog and Alarm line adapted to PCS7 V6
- Faceplate call-up from CEMAT PCS7 V6 Symbols
- CEMAT-Symbols for automatic generation of block icons  
(Attention: dont use Symbols from CEMAT V5.03 or lower; from CEMAT V5.03 new Symbols are used)
- KCS AS Modules and Faceplates included

#### **CEMAT V6.0 SP1**

- Show plant selection messages and also the system messages in the alarm line
- CEMAT in French.
- Script modification for the add-on Migration\_S5\_V3

- GRUZU modification for the add-on Migration\_S5\_V3
- help in the controller faceplate
- demo mode possible
- MAX\_PLC increased to 50
- User rights for the Faceplate buttons can be defined per Instance.
- Additional symbols for C\_GROUP, C\_ROUTE and C\_SELECT.
- Comment length changed to 24 signs per line.
- Project standard 007 (HZ), 024 (Busher) and 025 (Caima) integrated.

### **CEMAT V6.0 SP2**

- Project Standard 006 (Dyckerhoff), 026 (Alsen), 027 (Lafarge) and 028 (Rossi) now available. The project standards will be installed automatically, using the right project key.
- CEMAT V6 SP2 uses the controller blocks CTRL\_PID and CTRL\_S from the PCS7 library V60. Please consider the following:
  - Messages:
    - The message text for Event includes the block comment and the fault type because the message format is different from the message format for CEMAT blocks (no additional texts possible).
    - The fault type has been copied to the left side, do enable the display in the alarm line.
  - GraCS Directory:
    - The Objects @C\_Template01.pdl, ReglerSymbol1.pdl, ReglerSymbol2.pdl and @PG\_C\_Pid.pdl have been removed from the GraCS Directory, because the OCX technique is no longer used.
  - OCX Controller:
    - The files C\_IX\_PID.ocx and C\_PID\_DLG.ocx are not delivered any more. The batches for (un)register RegCtrls.bat and UnRegCtrls.bat have been adapted accordingly.
  - Documentation:
    - Overview and C\_PID\_e.pdf is new.
- Modifications under WinCC\Library
  - Faceplate Positioning and Button texts:
    - With the new Script PCS7\_OpenGroupDisplay\_V6\_CEMAT.fct the button texts can be transmitted from the Symbol property to the Faceplate property.
    - There the possibility to display the faceplates at a pre-defined position, entering the X- /Y-coordinates.
  - If the standard faceplate (...\_Standard.pdl) is extended through additional functions (e. g. Info Button) the faceplate is positioned in that way that it fits into the working area. New script C\_SetFaceplate.fct.
  - No application error will be generated on ENG or Single Station while reading variable @RM\_SERVER\_NAME.
    - Modification for script C\_ReadServerName.fct.
- Group instance list: The objects which are switched "Simulation" mode can be identified in the Group instance list through a different color.
- CEMAT message system (C\_AlarmList.pdl), Online display/ Status field
  - Status field in the WinCC Dialog is now visible.
  - The display of the messages is actualized online.
  - Message display for actual messages shows incoming and acknowledged.

- Sporadic fault for refresh button now solved (sometimes the first line was selected instead of the last line). The display is being updated immediately with the change of archive - refresh is not required.
- The symbols for the project versions (except Lafarge) are not integrated in the template pictures @C\_PCS7Typicals.pdl and @C\_Template.pdl.
  - In all symbols the script PCS7\_OpenGroupDisplay\_V6\_CEMAT.fct is used for opening the faceplate.
  - Controller symbols for the PCS7 Controllers and example symbols for button text (Index 300) have been added.
- Positioning function for C\_DAMPER
 

When entering the setpoint for damper position, the bar has been active immediately (without any confirmation). The bar has been deleted. Instead of this an additional box opens with an input bar and limits.
- Correction of a fault for the actualization of the measure bar of C\_MEASUR. In the Alarm-Faceplate the bar didn't change colors. It remained red. Actualization changed and new bar object.
- Modification of diagnostic pictures for C\_DRV\_1D, C\_DRV\_2D, C\_DAMPER, C\_VALVE, C\_VAL\_2D, C\_ANNUNC, C\_ANNUN8, C\_MEASUR, C\_GROUP and C\_SILOP:
  - Adaptation of ranges for process values according to documentation.
  - Adaptation of the ToolTips in German, English and French
  - Adaptation of the units for the process values in all three languages.

The modification has been carried out in the normal standard, and in the Project versions for Alsen, Bushehr, Caima, Dyckerhoff and HZ.
- Modification of the description texts for the following interfaces of the route module in order to avoid misunderstanding: WWWT, WVWE, WVWA, WVWL and WUUS. The modification implies Documentation, diagnostic pictures and blocks.
- Template pictures for system information available.
 

The PDLs C\_System\_Overview.pdl and C\_System\_DIAG\_xxx.pdl can be used as templates for system information in combination with the system diagnostic tools from I&S ITPS.

## **CEMAT V6.0 SP3**

### **General**

- New setup with selection of Station Type ENG (AS + OS) and SERVER/CLIENT (without AS). The application has been changed to a 32 Bit-Program (==> PATH-variable = 1024 Bytes).
- C\_Message.ocx: Date fields "from" and "to" were too small for 4digit-display and have been increased.
- New Curve templates @TRG\_default\_C1.pdl u. @TRG\_default\_C2.pdl
- @C\_PCS7TYPICALS.PDL , @C\_TEMPLATE.PDL
  - UserText, Script for Group-, Route-, Select- and Damper symbol changed
  - Tooltips for all Objects established
- Config-Files for SIMOCODE-Modules renamed (corresponding to object names)
- Standard-GRINZ (Obj) and -GRUZU (Status) include the Lafarge Objects.
- C\_CONFIG.CFG also includes the Lafarge Objects
- Button @CSIGQuitt.pdl with additional CEMAT AS acknowledge function.
- C\_ADAPT: the Config file must have an additional line after the fault definition, e. g. ";End of List"., otherwise the status call function does not work properly. (see description of C\_ADAPT)

- C\_SetFaceplate.fct: Faceplate positioning up/left
- MsgLineMsgSQL.CFG: as from now the MsgLineMsgSQL.cfg is empty
- pcs7\_updategroupetagname\_V6\_cem.fct for @PG\_C\_SIMO\_A\_xxxx.pdl
  - @PG\_C\_MEASUR\_TREND.pdl, @PG\_C\_AIB\_TREND.pdl

It is possible to use different measuring value archives with any name (without special characters) by entering an Archive name in the symbol properties of the measure symbol (under Attribute ReturnPath).

If attribute "Return Path" contains an archive name, the archive variable will be searched in this Archive.

If the attribute "ReturnPath" contains the default value ".MV:CO\_DKGREEN", the archive variable will be searched in Archive "ProcessValueArchive".

#### **PS 000**

- Simocode-Faceplates @PG\_C\_DRV\_SIMO\_FP.pdl and @PG\_C\_DAMP\_SIMO\_FP.pdl with help function
- @PG\_C\_SIMO\_A\_xxx.pdl new "open" Adapter block for SIMOCODE
- @PG\_C\_DRV\_2D\_xxx.pdl SIMOCODE Adapter Interface included
- @PG\_C\_DAMPER\_xxx.pdl SIMOCODE Adapter Interface included

#### **PS 027 Lafarge**

- License scan included
- @PG\_C\_M2B\_DIAG.pdl: Parameter "LS" was not connected.  
Diagnosis bit DV connected to Bit 8
- @PG\_C\_M2B\_\*.pd: Bargraph of analog value limited to 125.
- Actualization of @C\_LF\_PCS7Typicals.pdl and @C\_LF\_Template.pdl
- C\_DIB - Diagnosis bit DV connected
- C\_AAB AS change "F3 Intermediate Position" could not be acknowledged in case of limit position failure
- @PG\_C\_DAB\_x.pdl , PG\_C\_DABMAB\_x.pdl additional status with VDS-signal
- PG\_C\_xxxx\_ALARM additional column for status is included in the Alarm faceplate .
- PG\_C\_SSB\_xxx.pdl, Bst C\_SSB: Status "Interlocked" was not displayed in faceplate.  
Indication must be red in case of a trip and yellow in case of a warning.  
Process-Shutdown triggered with SPI=0 (GBVG) did not work. Quick Stop was activated.

#### **PS 007 HZ**

- @C\_VALVE\_DIAG.PDL: French text in field runtime protection was wrong
- @PG\_C\_DRV\_1D\_xxx.pdl and @PG\_C\_DAMPER\_xxx.pdl:  
click event on status symbol has been deleted.
- @PG\_C\_DRV\_1D\_xxx.pdl Operation Message "NON Interlock" correction of status
- @PG\_C\_SIMO\_A\_xxx.pdl new "open" Adapter block for SIMOCODE
- @PG\_C\_DRV\_2D\_xxx.pdl SIMOCODE Adapter Interface included
- @PG\_C\_DAMPER\_xxx.pdl SIMOCODE Adapter Interface included

#### **PS 028 Rossi**

- PG\_C\_DRV\_2D\_DIAG.pdl, Module flag EVSP sporadic EVS was not correctly connected.

## **2.2 Migration**

Upgrade instructions from CEMAT V5.02 / V5.03 to CEMAT V6 on inquiry.

### 2.3 Further Information

Detailed installation instructions you will find in the Engineering manual.  
(path D:\cem\_v6\docu or on the CD)

In the Directory **cd:\example** you can find an example project. The Project contains 3 PLCs where the PLC-PLC-Communication is already prepared. PLC1 contains furthermore a small engineering example with CEMAT Objects, CFCs and a process picture. (Two transport groups, an example for an uninterrupted route change-over and an example for a PID controller).

- CE54\_mp.zip contains a PCS7-Projekt with 3 PLCs, one Engineering Station, one Server + Standby-Server and one Multiclient.

In directory cd:\Hotfixe\_Tools\Clear\_WinCC you find a tool to terminate the WinCC applications.