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Process Control System PCS 7 PCS 7 Basis Library Readme V8.2 Update 9 (online)

Readme

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! CAUTION
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
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Overview

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Note

Read these notes carefully; they contain information that will be important to you and upgrades to PCS 7 Basis 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 Basis Library V8.2 Update 9

3.2 Hardware requirements

The hardware requirements of SIMATIC PCS 7 Version 8.2 and STEP 7 V5.5.4 HF12 apply.

Note

CPU_RT block:

The load display in the CPU_RT block is based on use of the system function SFC 78, which is available as of the standard CPU version ≥ 5.0 , high-availability CPU version ≥ 4.5 and the software CPU WinLC RTX. For versions < 5.0 or < 4.5 , only the "Stop notification on overload" function is available.

3.3 Software requirements

The blocks of the library require at least SIMATIC PCS 7 version 8.2 and at least STEP 7 V5.5.4 HF12.

Follow the installation requirements described in the readme file for HF12 before installing HF12 for STEP 7 V5.5.4.

3.4 Installing PCS 7 Basis Library

Exit all applications before you start setup.

Install the library via the PCS 7 master setup or start the program Setup.exe of the PCS 7 Basis 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 70 MB of free memory on the hard disk.

After the installation, you can find the latest blocks in the library "PCS 7 Basis Library V8.2".

In order to receive the delta compilation and delta load capability in your project, use the blocks from the previous version of the PCS 7 Basis Library.

3.4 Installing PCS 7 Basis Library

Please note that in this case you can not use the new features and improvements described in the section "Notes on the documentation (Page 31)".

To update your AS project, copy the blocks to your project.

Then perform a block type import.

New features and changes as compared to previous versions

4

Note

You may also want to read the information provided in the previous versions.

4.1 Version 8.2

4.1.1 What's new in version 8.2?

- Changes to the blocks with respect to the extension of ASSET functionality (see function manual Process Control System PCS 7; Maintenance Station)
- Support for new hardware
 - S7-400 CPU V7
CPU 417-4, MLFB: 6ES7 417-4XT07-0AB0
CPU 414-3 PN/DP, MLFB: 6ES7 414-3EM07-0AB0
CPU 416-3 PN/DP, MLFB: 6ES7 416-3ES07-0AB0
 - Distributed I/O System ET200 SP
AI EnergyMeter ST V2.0, MLFB: 6ES7 134-6PA00-0BD0
AI4 RTD/TC 2-wire HF V2.0, MLFB: 6ES7 134-6JF00-0CA1
 - Distributed I/O system ET 200PA SMART
IM 650-8 SMART coated, MLFB: 6ES7 650-8PH00-1AA0
DI 16xDC24V coated, MLFB: 6ES7 650-8DK70-1AA0
DI 32XDC 24V coated, MLFB: 6ES7 650-8DK80-1AA0
DO 16xDC24V/0,5A coated, MLFB: 6ES7 650-8EK70-1AA0
DO 32x24VDC/0,5A coated, MLFB: 6ES7 650-8EK80-1AA0
AI8x16Bit coated, MLFB: 6ES7 650-8AK60-1AA0
AI8xTC/4xRTD coated, MLFB: 6ES7 650-8AR60-1AA0
AI16x16Bit coated, MLFB: 6ES7 650-8AK70-1AA0
AO8x12Bit coated, MLFB: 6ES7 650-8BK60-1AA0
 - SIMATIC NET CP 443-1 coated, MLFB: 6GK7 443-1EX30-0XE1
 - SIMATIC NET CP 443-5 Extended coated, MLFB: 6GK7 443-5DX05-0XE1
 - Redundant power supply modules
PS 405 coated, MLFB: 6ES7 405-0KR02-0AA1
PS 407 10A coated, MLFB: 6ES7 407-0KR02-0AA1
 - Standard power supply modules
PS 405 4A coated, MLFB: 6ES7 405-0DA02-0AA1
PS 407 4A coated, MLFB: 6ES7 407-0DA02-0AA1
 - Central rack for S7-400
UR2 ALU coated, MLFB: 6ES7 400-1JA11-0AA1
UR2 ALU-H coated, MLFB: 6ES7 400-2JA10-0AA1

4.1.2 Changes in version 8.2

- Improved behavior of diagnostics blocks with higher-level error

4.1.3 Update information for version 8.2

The following applies to the software update from version 8.1.x to version 8.2:

1. Compile AS: **Complete compilation**
2. Download AS program: **Full download**
3. AS STOP necessary: **Yes (AS STOP is not necessary if a CPU 410-5H with TCiR is used)**
4. Compile OS: **Complete compilation**

List of changed blocks

Name	Number	Block version	Interface change (AS STOP is not necessary if a CPU 410-5H with TCiR is used)	Code change
CONEC	FB88	8.0	No	Yes
CPU_RT	FB128	8.0	No	Yes
DIAG_AB	FB414	8.0	No	Yes
DPAY_V0	FB108	8.0	No	Yes
DPAY_V1	FB115	8.0	No	Yes
DPAY_V1_PN	FB204	8.0	No	Yes
DPDIAGV0	FB117	8.0	No	Yes
DREP	FB113	8.0	No	Yes
DREP_L	FB125	8.0	No	Yes
FF_MOD32	FB124	8.0	Yes	Yes
FFD_CIF	FB145	8.0	No	Yes
FFDP_L1	FB139	8.0	No	Yes
FM_CNT	FB126	8.0	No	Yes
FM_CO	FB79	8.0	No	Yes
IMDRV_TS	FB129	8.0	No	Yes
MOD_1	FB91	8.0	Yes	Yes
MOD_2	FB92	8.0	Yes	Yes
MOD_3	FB95	8.0	Yes	Yes
MOD_4	FB119	8.0	Yes	Yes
MOD_64	FB137	8.0	Yes	Yes
MOD_CENTRAL	FB 206	8.0	Yes	Yes
MOD_CP	FB98	8.0	Yes	Yes
MOD_CP_PN	FB201	8.0	Yes	Yes
MOD_D1	FB93	8.0	Yes	Yes
MOD_D2	FB94	8.0	Yes	Yes
MOD_D3	FB134	8.0	Yes	Yes
MOD_D8_PN	FB197	8.0	Yes	Yes

New features and changes as compared to previous versions

4.1 Version 8.2

Name	Number	Block version	Interface change (AS STOP is not necessary if a CPU 410-5H with TCiR is used)	Code change
MOD_D16_PN	FB198	8.0	Yes	Yes
MOD_D24_PN	FB199	8.0	Yes	Yes
MOD_DRV	FB148	8.0	Yes	Yes
MOD_ENME	FB419	8.0	New block	
MOD_HA	FB97	8.0	Yes	Yes
MOD_HA_PN	FB200	8.0	Yes	Yes
MOD_HA_PN1	FB417	8.0	Yes	Yes
MOD_MS	FB96	8.0	No	Yes
MOD_PAL0	FB99	8.0	Yes	Yes
MOD_PAX0	FB112	8.0	Yes	Yes
MOD_SWT	FB149	8.0	Yes	Yes
OB_BEGIN	FB100	8.0	No	Yes
OB_BEGIN_HP	FB205	8.0	No	Yes
OB_BEGIN_PN	FB130	8.0	No	Yes
OB_DIAG1	FB118	8.0	Yes	Yes
OB_DIAG2	FB416	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	Yes	Yes
OB_DIAGF	FB146	8.0	No	Yes
OB_DIAGF2	FB418	8.0	No	Yes
OR_32_TS	FB138	8.0	No	Yes
OR_HA16C	FB133	8.0	Yes	Yes
OR_M_8C	FB83	8.0	Yes	Yes
OR_M_16C	FB84	8.0	Yes	Yes
OR_M_32C	FB85	8.0	Yes	Yes
PADP_L00	FB109	8.0	No	Yes
PADP_L01	FB110	8.0	No	Yes
PADP_L02	FB111	8.0	No	Yes
PADP_L10	FB116	8.0	Yes	Yes
PDM_MS	FB81	8.0	No	Yes
PNDP_L10	FB203	8.0	Yes	Yes
PS	FB89	8.0	No	Yes
QC_CHNG	FB135	8.0	No	Yes
RACK	FB107	8.0	Yes	Yes
RACK_PN	FB90	8.0	Yes	Yes
SUBNET	FB106	8.0	Yes	Yes
SUBNET_PN	FB82	8.0	Yes	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.2 Version 8.2 Update 1

4.2.1 What's new in Version 8.2 Update 1?

- Change of the message characteristics for **OB_DIAG2**: The block reports maintenance required for all messages regarding EFD.
- Support of bus module 193-6AR00 for the IM 155-6AU00 FW 3.1
- Change of the message characteristics for **OB_DIAG2**: The block reports all events of the EFD as maintenance required.

4.2.2 Changes in version 8.2 Update 1

- Improvement of the blocks **FF_MOD32**, **MOD_PAX0**, **MOD_PAL0**, **MOD_HA**, **MOD_HA_PN**, **MOD_HA_PN1** with respect to flutter suppression
- Improvement of the blocks **DPAY_V0**, **FFDP_L1**, **FFD_CIF**, **OB_DIAG1**, **OB_DAIG2**, **OB_DIAGF**, **OB_DIAGF2**, **RACK**, **SUBNET** with respect to update of **SUBN1ACT**, **SUBN2ACT** output parameters during master/slave switchover
- Improvement of the blocks **OB_DIAG2**, **OB_DIAG1**, **MOD_DRV** and **MOD_SWT** with respect to message behavior on return of the master system
- Improvement of message behavior for **DP-PA Link** in the H-system
- Improvement of the message behavior for **MOD_PAL0** with respect to duplicate messages with the use of AFDiS
- Improvement of the message behavior of the blocks **OB_BEGIN**, **OB_BEGIN_HPN** on restart of the CPU
- Improvement of the message behavior of the blocks **OB_BEGIN_PN**, **SUBNET_PN**, **OB_DIAG1_PN** and **RACK_PN**
- Improvement of the blocks **PADP_L10**, **MOD_PAX0** and **MOD_PAL0** with respect to mode update

4.2.3 Update information for version 8.2 Update 1

The following applies for the software update from version 8.2 to version 8.2.0.1:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
DPAY_V0	FB108	8.0	No	Yes
FFDP_L1	FB139	8.0	No	Yes
FFD_CIF	FB145	8.0	No	Yes
FF_MOD32	FB124	8.0	No	Yes
MOD_PAL0	FB99	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG2	FB416	8.0	No	Yes
OB_DIAGF	FB146	8.0	No	Yes
OB_DIAGF2	FB418	8.0	No	Yes
RACK	FB107	8.0	No	Yes
MOD_PAX0	FB112	8.0	No	Yes
MOD_HA	FB97	8.0	No	Yes
MOD_HA_PN	FB200	8.0	No	Yes
MOD_HA_PN1	FB417	8.0	No	Yes
OB_BEGIN	FB100	8.0	No	Yes
OB_BEGIN_HP	FB205	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	No	Yes
OB_BEGIN_PN	FB130	8.0	No	Yes
SUBNET_PN	FB82	8.0	No	Yes
MOD_DRV	FB148	8.0	No	Yes
MOD_SWT	FB149	8.0	No	Yes
SUBNET	FB106	8.0	No	Yes
RACK_PN	FB90	8.0	No	Yes
PADP_L10	FB116	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.3 Version 8.2 Update 2

4.3.1 What's new in Version 8.2 Update 2?

- Change of the message characteristics for **MOD_DRV** and **MOD_SWT**. The blocks now report maintenance required for one-sided port error (S2 Redundancy).

4.3.2 Changes in version 8.2 Update 2

- Improvement of the message behavior for the **IMDRV_TS** block.
- Improvement of the **OB_DIAG1** block regarding the output structure of the **RAC_DIAG**.
- The output structure **RAC_DIAG** for the block **OB_DIAG1_PN** now contains information on port errors in **SUBN2ERR**.
- Improvement of the message behavior of the blocks **SUBNET_PN**, **OB_DIAG1_PN**, and **RACK_PN** during S2 Redundancy.

Note

No port errors are reported by network devices.

4.3.3 Update information for version 8.2 Update 2

The following applies for the software update from version 8.2 to version 8.2.0.2:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
IMDRV_TS	FB129	8.0	No	Yes
MOD_DRV	FB148	8.0	No	Yes
MOD_SWT	FB149	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	No	Yes
RACK_PN	FB90	8.0	No	Yes
SUBNET_PN	FB82	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.4 Version 8.2 Update 3

4.4.1 What's new in Version 8.2 Update 3?

- Improvement of the message behavior for **MOD_HA**, **MOD_HA_PN** and **MOD_HA_PN1**. The blocks now signal "Additional status available" for HART devices as a **NOTIFY** (AS status) message.

4.4.2 Changes in version 8.2 Update 3

- Improvement of the message behavior for **MOD_DRV** and **MOD_SWT**.
- Improvement of the message behavior for **MOD_HA**, **MOD_HA_PN** and **MOD_HA_PN1**.
- Improvement of the behavior of the **OB_DIAG1** block in relation to CPU redundancy switchover.
- Improvement of the behavior of the **OB_DIAG1_PN** block in relation to port monitoring.
- Improvement of the behavior of the **SUBNET** block in relation to redundancy switchover.
- Improvement of the behavior of the **RACK** block in relation to redundancy switchover.

4.4.3 Update information for version 8.2 Update 3

The following applies for the software update from version 8.2 to version 8.2.0.3:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
MOD_HA	FB97	8.0	No	Yes
MOD_DRV	FB148	8.0	No	Yes
MOD_SWT	FB149	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	No	Yes
MOD_HA_PN	FB200	8.0	No	Yes
MOD_HA_PN1	FB417	8.0	No	Yes
RACK	FB107	8.0	No	Yes
SUBNET	FB106	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.5 Version 8.2 Update 4

4.5.1 What's new in Version 8.2 Update 4?

- Blocks **OB_BEGIN**, **OB_BEGIN_PN**, **OB_BEGIN_HPN** take back pending messages on CPU replacement
- Improvement of the message behavior of the blocks **OB_DIAG1** and **OB_DIAG1_PN** for devices connected to CP443-1.
- newly instanced block **CPU_RT** also starts up without restart of the CPU

4.5.2 Changes in version 8.2 Update 4

- Improvement of the behavior of the blocks **OB_BEGIN**, **OB_BEGIN_PN**, **OB_BEGIN_HPN** on CPU replacement
- Improvement of the diagnostics behavior of the blocks **OB_DIAG1** and **OB_DIAG1_PN**
- Improvement of the startup characteristics of the **CPU_RT** block

4.5.3 Update information for version 8.2 Update 4

The following applies for the software update from version 8.2.0.3 to version 8.2.0.4:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
OB_BEGIN	FB100	8.0	No	Yes
OB_BEGIN_PN	FB130	8.0	No	Yes
OB_BEGIN_HPN	FB205	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	No	Yes
CPU_RT	FB128	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.6 Version 8.2 Update 5

4.6.1 What's new in Version 8.2 Update 5?

- Improved diagnostics behavior for the **SUBNET** and **OB_DIAG1** blocks

4.6.2 Changes in version 8.2 Update 5

- Improvement of the diagnostics behavior of the **SUBNET** and **OB_DIAG1** blocks when using redundant DP standard slaves
- Improved diagnostics behavior of the **OB_DIAG1** block when using Y-Links
- Improvement of the **OB_DIAG1** block regarding the use of the **DPNRM_DG** (SFC 13)

4.6.3 Update information for version 8.2 Update 5

The following applies for the software update from version 8.2.0.4 to version 8.2.0.5:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
OB_DIAG1	FB118	8.0	No	Yes
SUBNET	FB106	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.7 Version 8.2 Update 6

4.7.1 Changes in version 8.2 Update 6

- Installation on **Windows 7 Ultimate / Enterprise SP1 (64-Bit)** is supported
- Improvement in support for **IE/PB-Link V2.1**
- Correction in the handling of the **ET 200iSP** in conjunction with the **Watchdogmodul 6ES7 138-7BB00-0AB0** by the PCS 7 driver generator
- Improvement in the diagnostic behavior of field devices downstream of a Y-Link (**OB_DIAG1**)
- Improvements for "Generate module drivers" for devices configured via GSDML without subslots

4.7.2 Update information for version 8.2 Update 6

The following applies for the software update from version 8.2.0.5 to version 8.2.0.6:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
OB_DIAG1	FB118	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

4.8 Version 8.2 Update 7

4.8.1 Changes in version 8.2 Update 7

- Improvement of the behavior of the **RACK** block for HCiR
- Improved diagnostics behavior of the **OB_BEGIN**, **OB_BEGIN_PN** and **OB_BEGIN_HPNI** blocks for TCiR
- Correction of the calculation algorithm of the **CPU_RT** block regarding the utilization component of the OB8x tasks
- Improvements of the "Generate module drivers" for Simocode and Sinamics devices on the IE/PB Link
- Improved diagnostics behavior of the **OB_DIAG1** and **OB_DIAG2** blocks.

4.8.2 Update information for version 8.2 Update 7

The following applies for the software update from version 8.2.0.6 to version 8.2.0.7:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
OB_BEGIN	FB100	8.0	No	Yes
RACK	FB107	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
CPU_RT	FB128	8.0	No	Yes
OB_BEGIN_PN	FB130	8.0	No	Yes
OB_BEGIN_HP	FB205	8.0	No	Yes
OB_DIAG2	FB416	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
- If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.

4.9 Version 8.2 Update 8

4.9.1 Changes in Version 8.2 Update 8

- Inclusion of additional hardware object types to support the "Generate module driver" function in conjunction with the APL channel block, FbDrive
- Enables the use of CPU1500 as a standard slave with "Generate module drivers"
- Correction for the function "Generate module drivers" for CPUs with configured FW status $\geq V6.0$ without using a PN-IO system
- Improvements in the diagnostics behavior of the **SUBNET** block in redundant environments
- Improvements in the diagnostics behavior of the blocks **OB_DIAG1** and **OB_DIAG2** for devices directly on the Profibus master system and on Y-Link
- Improvements in the diagnostics behavior of the blocks **RACK**, **OB_DIAG1**, **OB_DIAG2** and **OB_DIAG1_PN** in HCiR scenarios
- Improvements in the diagnostics behavior of the blocks **MOD_CP**, **MOD_CP_PN**, **MOD_D1**, **MOD_D2**, **MOD_D3**, **MOD_D8_PN**, **MOD_D16_PN** and **MOD_D24_PN** with station re-integration

4.9.2 Update information for Version 8.2 Update 8

The following applies for the software update from version 8.2.0.7 to version 8.2.0.8:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
MOD_CP	FB98	8.0	No	Yes
MOD_CP_PN	FB201	8.0	No	Yes
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG2	FB416	8.0	No	Yes
OB_DIAG1_PN	FB202	8.0	No	Yes
MOD_D1	FB93	8.0	No	Yes
MOD_D2	FB94	8.0	No	Yes
MOD_D3	FB134	8.0	No	Yes
MOD_D8_PN	FB197	8.0	No	Yes
MOD_D16_PN	FB198	8.0	No	Yes
MOD_D24_PN	FB199	8.0	No	Yes
RACK	FB107	8.0	No	Yes
SUBNET	FB106	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
- If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.

4.10 Version 8.2 Update 9

4.10.1 Changes in version 8.2 Update 9

- Improvements for "Generate module drivers" for DP standard drives downstream from a IE/PB Link in the PN IO system
- Improvements for "Generate module drivers" for block reporting **MOD_DRV**, **MOD_SWT** and **MOD_PAX0**
- Improvements in the diagnostics behavior of the blocks **MOD_CENTRAL** and **DPAY_V0** in HcIR scenarios
- Improvements in the diagnostics behavior of the **SUBNET** block in redundant environments
- Improvements for "Generate module drivers" for PN interface modules (S2 redundancy) in failure scenarios
- Improvement of the diagnostics behavior of the **OB_DIAG2** block in redundant environments of the DP/PA (AFD) link
- Improvement of the diagnostics behavior of the **OB_DIAG1** block for PA field devices downstream from a DP/PA Link on a single AS

4.10.2 Update information for version 8.2 Update 9

The following applies for the software update from version 8.2.0.8 to version 8.2.0.9:

1. Compile AS: Complete compilation
2. Download AS program: Download changes
3. AS stop necessary: No
4. Compile OS: Compile changes

List of changed blocks

Name	Number	Block version	Interface change	Code change
OB_DIAG1	FB118	8.0	No	Yes
OB_DIAG2	FB416	8.0	No	Yes
SUBNET	FB106	8.0	No	Yes
DPAY_V0	FB108	8.0	No	Yes
MOD_CENTRAL	FB206	8.0	No	Yes

Note

- Blocks for which only attributes, message texts, and/or version number were changed, are not listed.
 - If "Yes" is listed in the column "Interface change" and "No" in the column "Code change", only the interfaces were prepared for a future function.
-

Information on configuration and operation

- The **blocks in the library** have been designed exclusively for **S7-400** automation systems.
- ET 200iS, ET 200X and DP field devices **cannot** be operated on an H system downstream from a Y link with PCS 7 standard blocks.
- An ET 200S (IM 151-1 High Feature) and a diagnostics repeater can be supported downstream from a Y-link only as a DP V0 slave, this must however be configured as DPV1.
- You are not permitted to set the minimum cycle time of OB1 to a value other than "0". With the CPU 410 PA SMART, the minimum scan cycle time of OB1 is permanently set to 200ms.
- One-sided distributed I/Os are not supported in PCS 7
- Note on the integration of device-specific auxiliary libraries
 - Relevant status information can be obtained from the parameters of the **OB_DIAG.../RACK...** block listed in the table.
Interconnect the parameters of the **OB_DIAG.../RACK...** block in the @Chart to the parameters of the block from the auxiliary library.

Parameter name of OB_DIAG.../RACK...	Function
SUBN1ERR	Shows the failure of an S1/S2 device/head (connection or device failure) Indicates the failure of the primary, redundantly connected R1 module/device or connection (cable).
SUBN2ERR	Indicates the failure of the secondary, redundantly connected R1 module/device or connection (cable). When the redundantly connected R1 device or both connections fail, SUBN1ERR = 1 and SUBN2ERR = 1 are set.
QRACKF	Display of the failure of an upstream component (link, network or controller), with the result that the status of one's own device is "unknown" (higher-level error).

Configuration information with regard to integration of a downstream diagnostic block for a Profibus/Profitnet standard slave.

For a non-redundant or S2 device, the signals SUBN1ERR and QRACKF must be linked via an "OR" and the output, like the previous QRACK interconnection, must be interconnected to the downstream diagnostic block. For an R1 device, the signals SUBN1ERR and SUBN2ERR must be linked via an "AND" and the output signal of the "AND" must be linked to the QRACKF via an "OR". The output of the "OR" is interconnected, like the previous QRACK interconnection, to the downstream diagnostic block.

Notes on the documentation

All information on working with the blocks is available in the online help. It is available after installation as context-sensitive help for each block via the F1 key or the "question mark" button.

Change history PCS 7 Basic Library Readme (V8.2)

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

Version	Edition	Change
2016-08-24 (ONLINE)	09/2016	Delivery version PCS 7 Basis Library V8.2 Update 1
2016-12-15 (ONLINE)	12/2016	Delivery version PCS 7 Basis Library V8.2 Update 2
2017-03-14 (ONLINE)	03/2017	Delivery version PCS 7 Basis Library V8.2 Update 3
2017-08-14 (ONLINE)	08/2017	Delivery version PCS 7 Basis Library V8.2 Update 4
2017-12-14 (ONLINE)	12/2017	Delivery version PCS 7 Basis Library V8.2 Update 5
2018-03-18 (ONLINE)	03/2018	Delivery version PCS 7 Basis Library V8.2 Update 6
2018-06-01 (ONLINE)	06/2018	Delivery version PCS 7 Basis Library V8.2 Update 7
2018-09-11 (ONLINE)	09/2018	Delivery version PCS 7 Basic Library V8.2 Update 8
2019-02-27 (online)	03/2019	Delivery version PCS 7 Basis Library V8.2 Update 9

