

Software update from PCS 7 V7.0 SP2 to PCS 7 V7.0 SP3

PCS 7

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Question

How do you update from PCS 7 V7.0 SP2 to PCS 7 V7.0 SP3?

Answer

This document gives a brief description of how to update from PCS 7 V7.0 SP2 to PCS 7 V.0 SP3.

Requirements

Please carefully read the notes in the "PCS 7 Readme" in the Product Information catalog, as they contain important information about installing and using PCS 7.

Contents

1	Preparation.....	4
2	Start the PCS 7 update	5
3	Update the project	6
3.1	Update blocks.....	6
3.2	Compile charts of the S7 programs.....	7
3.3	Update OS projects	7
3.4	OS Server compiling changes.....	8
3.5	Download target systems	8
4	Update redundant systems in runtime	9
5	Options	10
6	List of changed blocks.....	11

1 Preparation

Proceed as shown in the table below to prepare for upgrading.

Table 1-1

Step	Procedure
1.	Backup It is recommended to backup the partitions of all the computers concerned before starting this task. You can use the "SIMATIC Image & Partition Creator" software for this. http://support.automation.siemens.com/WW/view/de/38400496
2.	Save project Save the project and any custom libraries before starting the update.
3.	Save licenses Updating does not delete the licenses installed on the system. When doing a complete reinstallation, save all existing licenses first.
4.	PDM data Updating does not delete the PDM devices installed on the system. You can continue to use them after the update. When doing a complete reinstallation, save all the installation files for the PDM devices first.
5.	Disable WinCC Autostart If being used, you must disable the "WinCC Autostart" function before upgrading. <ul style="list-style-type: none">• OS Client: "Start > SIMATIC > WinCC > Autostart"• OS Servers: "Start > SIMATIC > SIMATIC Net > Configuration Console > Applications > Autostart" Please reboot you PC Station after disabling the WinCC Autostart function.

2 Start the PCS 7 update

WARNING

Before you install PCS 7 V7.0 SP3, read the instructions concerning system and software requirements in the PCS 7 Readme.

When updating SIMATIC BATCH, the installation might be blocked. To avoid this, switch the BATCH start coordinator to "manual" or terminate the process via the taskbar.

Note

You can find more information on updating PCS 7 in the following manuals:

- "PCS 7 – Software Updates Using New Functions"
- "PCS 7 – Software Updates Without Using New Functions"

Table 2-1

Step	Procedure
1.	Install the PCS 7 update Start the basic setup of PCS 7 V7.0 SP3. Select the "Update" option for the setup type.

3 Update the project

3.1 Update blocks

With master data library

Proceed as follows.

Table 3-1

Step	Procedure
1.	Copy blocks Copy all the blocks used in the project from the new libraries (e.g. PCS 7 Library V70; BATCH Library, RC Library) into the master data library. The existing blocks will be overwritten. If you have carried out adaptations in the original blocks, you must do this for the new blocks again.
2.	Update block types Select the block folder in the master data library of the multiproject and then select the menu command "Options > Charts > Update block types". In the dialog that opens you can select or deselect all the programs (and sample solutions). Click on the "Continue" button. All the block types are displayed for selection/deselection. Select the blocks for system updating from the "List of changed system blocks". Click on the "Finish" button.

This procedure replaces all the block types in the block folder of the project and does a block type import in all the chart folder of the project.

Without master data library

Proceed as follows for each library used.

Table 3-2

Step	Procedure
1.	Open the library Open the library from which you use blocks in your project.
2.	Update block types Select the blocks used and then select the menu command "Options > Charts > Update block types". In the dialog that opens you can select or deselect all the programs (and sample solutions). Click on the "Continue" button. All the block types are displayed for selection/deselection. Select the blocks for system updating from the "List of changed system blocks". Click on the "Finish" button.

This procedure replaces all the block types in the block folder of the project and does a block type import in all the chart folder of the project.

3.2 Compile charts of the S7 programs

Proceed as follows.

Table 3-3

Step	Procedure
1.	Compile S7 program Compile the program of each AS with these settings: <ul style="list-style-type: none">• Entire program• Generate module drivers

3.3 Update OS projects

Open the projects of all OS servers and OS clients successively on the ES and proceed the steps as follows.

Table 3-4

Step	Procedure
1.	Generate header Open the Global Script C editor and select the "Tools > Regenerate Header" menu command.
2.	Start the OS project editor Start the OS project editor with this Option "Configurations that support online DeltaLoading only (Tab: "General")" Note: Updating PCS 7 also updates WinCC to the version WinCC V6.2 SP3. When you start the OS project editors, all the standard screens and faceplates are updated and new functions are integrated into the project.

3.4 OS Server compiling changes

Proceed as follows to compile the OS:

Table 3-5

Step	Procedure
1.	Compile the OS Server Start compilation for all OS servers with these options: <ul style="list-style-type: none">• Changes• Tags and messages• Picture Tree (if using Asset Management)

3.5 Download target systems

Start the PCS 7 actualization of the PC Stations, before you load the OS Server and OS Clients.

Proceed as follows to download the target systems:

Table 3-6

Step	Procedure
1.	OS Server Start the complete download of all OS Server.
2.	OS Clients Start the complete download of all OS Clients.
3.	AS program Start downloading changes of the S7 programs of all AS.

Note

Sequences of SFC charts are not stopped during the software update as long as no changes have been made within the sequences.

4 Update redundant systems in runtime

Proceed as follows to update redundant systems:

Table 4-1

Step	Procedure
1.	Update the standby servers and all clients.
2.	Do a complete download of the OS projects to the standby servers and the clients.
3.	Start the standby servers and clients. -> Wait for the redundancy synchronization to complete.
4.	Download the control program into the AS.
5.	Update the master servers.
6.	Do a complete download of the OS projects to the master servers.
7.	Start the master servers. -> Wait for the redundancy synchronization to complete.

Note

More information on updating redundant systems is available in the manual "Fault-tolerant Process Control Systems", in the section entitled "Instructions for updating a redundant OS in runtime".

5 Options

Table 5-1

Option	Description
Route Control	Start the "Route Control Wizard" in projects with Route Control. Then run through the "Todos" displayed in the log files of the "Route Control Wizard".
SIMATIC BATCH	There is no need for manual intervention in SIMATIC BATCH projects. Should the BATCH server not start, follow the notes in the following contribution: http://support.automation.siemens.com/WW/view/en/41923410
Web option	Web servers are to be seen as OS clients. You must also start the "Web View Publisher" and the "Web Configurator". When you restart the Internet Explorer on the Web clients, you are prompted to install an update of the web client. You can fetch the installation files from the web server.
CAS	The CAS (Central Archive Server) is the first computer taken from the computer network and the last to be put back into operation. The CAS failure time must not exceed the shortest circular log time of the OS servers. The same procedure applies for CAS as for OS servers. Refer also to the information on "Updating archive servers" in the PCS 7 readme.

6 List of changed blocks

The following table lists all the changed system blocks compared with PCS 7 V7.0 SP2.

Table 6-1

Library	Block no.	Block name	Supports delta loading
PCS 7 Library V70	FB51	PT1_P	✓
	FB62	DIG_MON	✓
	FB98	MOD_CP	✓
	FB106	SUBNET	✓
	FB116	PADP_L10	✓
	FB134	MOD_D3	✓
	FC275	CH_AI	✓
	FC283	CH_U_AI	✓

Table 6-2

Library	Block no.	Block name	Supports delta loading
PCS 7 APC V70	FB142	MPC	✓

Table 6-3

Library	Block no.	Block name	Supports delta loading
RC Library V7013	FB803	RC_ROUTE_RCE_ON	✓
	FB881	RC_XC_PCU_FB	✓

Note

In the case of the PCS 7 Standard Library, the blocks changed by a hotfix are replaced in the Standard Library. By comparison, the hotfixes of the RC Library (V7013) lie in parallel to the RC Library V70 in the S7LIBS folder. This means that these libraries are to be seen as separate items in the Open dialog of the libraries.