

Operating system update with ProTool

ProTool

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Question

How do you do an operating system update (OS update) on operator panels
with ProTool?

Answer

Follow the instructions and notes listed in this document for a detailed answer to the above question.

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1 Operating system update with ProTool

Below is a summary of how to do an operating system update with ProTool.

- The operating system of the operator panel depends on the version of ProTool used.
You should do any operating system update whenever the operating system of the operator panel does not match the software version used. Information on this is available in [section 1.1](#).
- You can also use the "PTUpdate" application to do an operating system update.
You must use "PTUpdate" in particular for versions of ProTool earlier than V6.0.
Information on this is available in [section 1.2](#).
- If no operable operator panel image exists on the operator panel, you can only update the operating system by means of a reset to factory settings.
Information on this is available in [section 1.3](#).
- If you have questions on establishing the connection or problems with the operating system update, please refer to [chapter 2](#) and [chapter 3](#) respectively.

1.1 Operating system update (OS update)

Please proceed as follows to perform an operating system update.

Table 1-1

No.	Procedure
1.	Setting the PG/PC interface In the SIMATIC Manager, you select the menu command Tools > Set PG/PC Interface... and set interface parameter assignment used, for example, CP 5512 (PROFIBUS).
2.	Make transfer settings on the operator panel Make the corresponding transfer settings on the operator panel and then switch the operator panel to Transfer mode.
3.	Establish cable connection Connect the operator panel to the PG/PC with an appropriate connection cable (according to the transfer setting selected).
4.	ProTool configuration Open the ProTool configuration.

No.	Procedure
5.	Set transfer mode In the ProSave menu bar, select the menu "File > Transfer > Settings..." Make the following settings in the dialog displayed. Then click the "OK" button".
6.	Execute the OS update In the ProTool menu bar, select the menu "Project > Transfer > OS Update..." The ProSave menu item "OS Update" opens. ProSave automatically adopts the transfer settings you made in Point 5. Note: Make sure that the correct Image path is set. This applies, in particular, if WinCC flexible and ProTool are installed jointly on your computer (see also section 2.2).
7.	Click on the "Device status" button. A connection is established between "ProSave" and the "operator panel".
8.	After the connection has been established successfully, the current image version of the operator panel is displayed. Click on the "Update OS" button. The operating system update is started.
9.	Transfer the project After the installation is complete, the "Control Panel" is displayed on the operator panel. For a subsequent project transfer, you first make the required transfer settings. For Touch operator panels, you should calibrate the screen beforehand under "Control Panel > OP > Touch".
10.	Now you can transfer the configuration.

1.2 Operating system update (PTUpdate)

You can also use the "PTUpdate" application to do an operating system update.

You must use this for versions of ProTool earlier than V6.0.

Table 1-2

No.	Procedure
1.	Call the "PTUpdate" program The "Images" folder is located in the ProTool installation folder. Alternatively, this directory is also on the ProTool installation CD. The corresponding Image file and "PTUpdate.exe" application are located in the device-specific subdirectories. Example for Windows XP: C:\Program Files \Siemens\PROTOOL\Utility\ProSave\Images\MP370\PTUpdate.exe
2.	Open the folder for your operator panel type and start the "PTUpdate.exe" file with a double-click.
3.	Execute the OS update with PTUpdate Select the Image file via the menu bar "File > Open..." and select the relevant Image file "*.img".
4.	Via the menu item "File > Settings..." you can set the PC's interface via which the Image file is to be transferred to the panel (COM interface and baud rate). Note: For transfer you need a standard RS232 zero modem cable (order number: 6ES7 901-1BF00-0AX0) to connect the configured COM port of your PC to the IF 2 interface (RS 232) of the operator panel.
5.	Click on the " Transfer " icon in the menu bar. This triggers data transfer between the operator panel and the PC. Please follow the instructions on the PC. Once the transfer has been completed successfully you restart the operator panel.
6.	Transfer the project After the installation is complete, the "Control Panel" is displayed. For a subsequent project transfer, you first make the required transfer settings. In the case of Touch operator panels, you should calibrate the screen beforehand under "Control Panel > OP > Touch".
7.	Now you can transfer the configuration.

1.3 Resetting the operating system to the factory settings (booting)

Proceed as follows to reset the operator panel to the factory settings.

Table 1-3

No.	Procedure
1.	Backup of licenses and authorizations Before resetting your operator panel to the factory settings, make sure that there are no licenses or authorizations on the operator panel. Information on this is available in Entry ID: 27005215
2.	Make transfer settings on the operator panel No transfer settings need to be made on the operator panel.
3.	Switch off the power supply for the operator panel.
4.	Establish cable connection Connect the operator panel via the IF 2 interface (RS 232) using a standard RS232 zero modem cable (order number: 6ES7 901-1BF00-0AX0), to the configured COM port of your PC.
5.	ProTool configuration Open the ProTool configuration.
6.	Set transfer mode In the ProTool menu bar, select the menu "File > Transfer > Settings...". Select "Serial" for the transfer setting and specify the appropriate connection and baud rate. Then click the "OK button".
7.	Resetting to the factory settings In the ProTool menu bar, select the menu "Project > Transfer > OS Update...". The ProSave menu item "OS Update" opens. ProSave automatically adopts the transfer settings you made in Point 5. Note: Make sure that the correct Image path is set. This applies, in particular, if WinCC flexible and ProTool are installed jointly on your computer (see also section 2.2).
8.	Check the " Reset to factory settings " check box or "Boot" check box (in earlier versions of ProSave). Note: If the "Reset to factory settings" check box is not displayed, refer to section 3.1 .
9.	Click on the " Update OS " button and switch the operator panel back on. A connection is established between "ProSave" and the operator panel and the operating system update is started. Note: If the "Reset to factory settings" check box is not displayed, refer to section 3.1 .
10.	After transfer of the data, ProSave requests you to reboot the operator

No.	Procedure
	panel (switch off and on). The operator panel then performs additional installation steps.
11.	Transfer the project After the installation is complete, the "Control Panel" is displayed on the operator panel. For a subsequent project transfer, you first make the required transfer settings. In the case of Touch operator panels, you should calibrate the screen beforehand under "Control Panel > OP > Touch".
12.	Now you can transfer the configuration.

2 Additional information

2.1 Cable connection between PC and operator panel

2.1.1 Operating system update

When performing an operating system update, you can use all the communication connections supported by your operator panel.

2.1.2 Resetting the operating system to the factory settings (booting)

If you reset the operating system to the factory settings, you cannot use all the communication connections and cables.

Information on which cable you can use for which operator panel is available in the table below.

Table 2-1

	RS 232 Zero modem cable	RS232/PPI Multimaster cable	USB/PPI Multimaster cable	PN PtP Cross	PN Ethernet
	6ES7 901- 1BF00-0XA0	6ES7 901- 3CB30-0XA0	6ES7 901- 3DB30-0XA0	6XV1 870- 3RH20	Standard Ethernet CAT5
TP 170A	X	--	--	--	--
OP 170B	X	--	--	--	--
TP 170B	X	--	--	--	--
OP 270	X	--	--	--	--
TP 270	X	--	--	--	--
MP 270B	X	--	--	--	--
MP 370	X	--	--	--	--
C7-635	X	--	--	--	--
C7-636	X	--	--	--	--
Mobile Panel 170	X	--	--	--	--

2.2 Set the image path / file in ProSave

In the following cases, you must change the image path or the image file accordingly:

1. After you have set, for example the WinCC flexible image path for the operator panel displayed, you must set the image path for ProTool if you now wish to use the same operator panel in ProTool.
2. If you need an earlier version of Image than the one currently displayed.

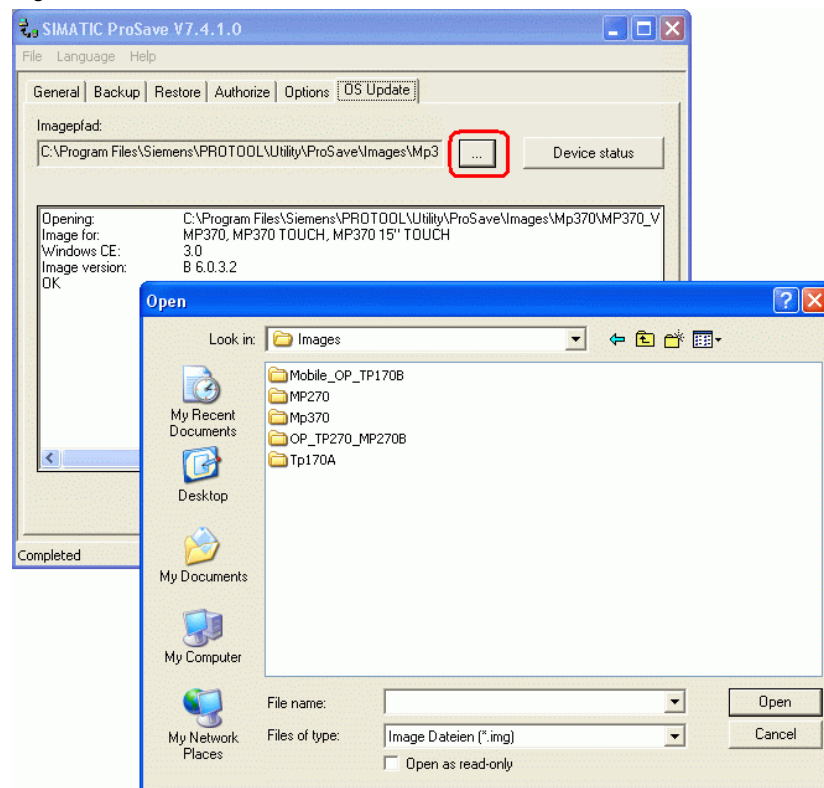
Note

- The image path setting is device-related. The setting is retained for the selected panel type after ProSave is closed.
- Beforehand, make sure that the correct Image path is set. This applies, in particular, if WinCC flexible and ProTool are installed jointly on your computer.

In order to set the image path in ProSave, click the button to the right of the image path and browse through the folder tree to specify the folder path in which the image files are located.

In the folders you find the image files required for the respective operator panel.

Figure 2-1



Sample image path in WinCC flexible

C:\Program Files\Siemens\PROTOOL\Utility\ProSave\Images\Operator Panel...

Note

The Image version of the operator panels depends on the version of ProTool used.

More information on the interrelation between ProTool and the Image version is available at the following link:

<http://support.automation.siemens.com/WW/view/de/28263711>

3 Problem Analysis

3.1 Check box not available in ProSave

If the check box "Reset to factory settings" is not displayed, then recheck the transfer settings made in ProTool.
Refer here to Table 2-1 in [section 2.1.2](#).

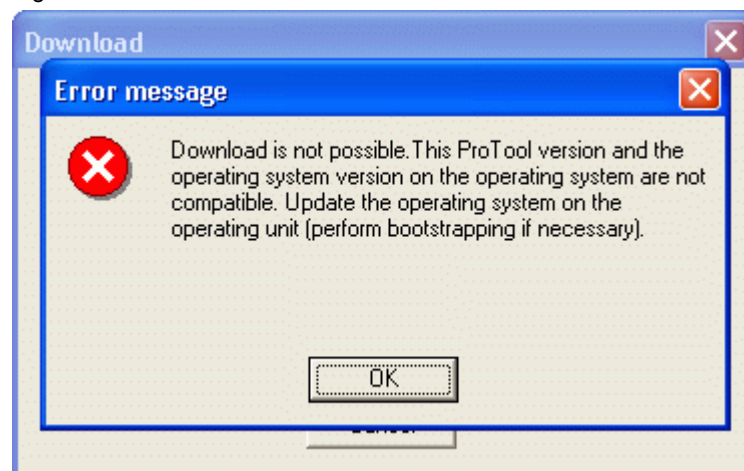
3.2 Error message during the transfer of the configuration

You have changed the operating system of your operator panel and during transfer of the configuration you receive the message that the operating system version of the operator panel does not match the software version used.

In this case, prior to updating the operating system, check that the image path has been set correctly and that you have selected the correct image file. Refer here to [section 2.2](#).

Example of an error message in ProTool V6.0 SP3.

Figure 3-1



3.3 A connection to the operator panel cannot be established

3.3.1 Check transmission type and address on the operator panel

Compare the transfer settings on the operator panel with those on the configuration computer.

Example:

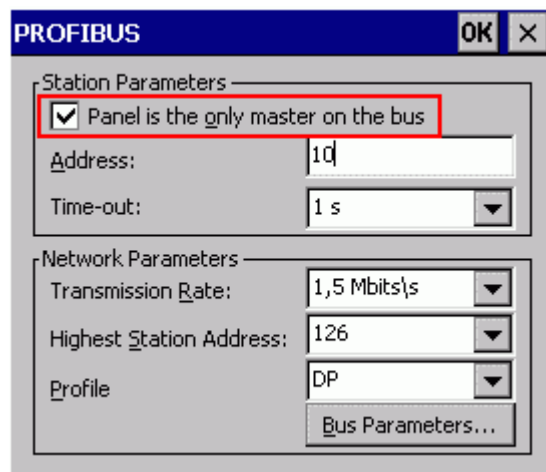
Configuration computer specification

Transfer via PROFIBUS;

Panel address 10

Make sure that "Panel is the only master on the bus" is checked for the transfer settings on the operator panel.

Figure 3-2



More information on the topic of "Transfer Settings" is available at the following link:

<http://support.automation.siemens.com/WW/view/de/13032411>

3.3.2 Check cable connection and connector

MPI/PROFIBUS cable

Please check the following points:

- Cable connection between the operator panel and the configuration computer.
 - Check the cable for damage.
- Bus connector especially the connection of the terminating resistors.
 - Terminating resistors ON/OFF.

The following guideline value applies:

- Bus terminating resistor OFF:
 - Bus terminating connector with "two" cables connected.
- Bus terminating resistor ON:
 - Bus terminating connector with "one" cable connected.

More information on the topic of "bus terminating resistors" is at the following link. <http://support.automation.siemens.com/WW/view/de/187276>

RS232/PPI multimaster cable

When using an RS232/PPI multimaster cable, please note the switch settings.

Refer here to the entry at the following

link: <http://support.automation.siemens.com/WW/view/de/16532946>

Ethernet cable

Use a "crossed" Ethernet cable for the connection between a PG/PC and an operator panel.

If you use a "patch" cable, you need a switch in addition.

3.3.3 Check the PG/PC interface on the configuration computer

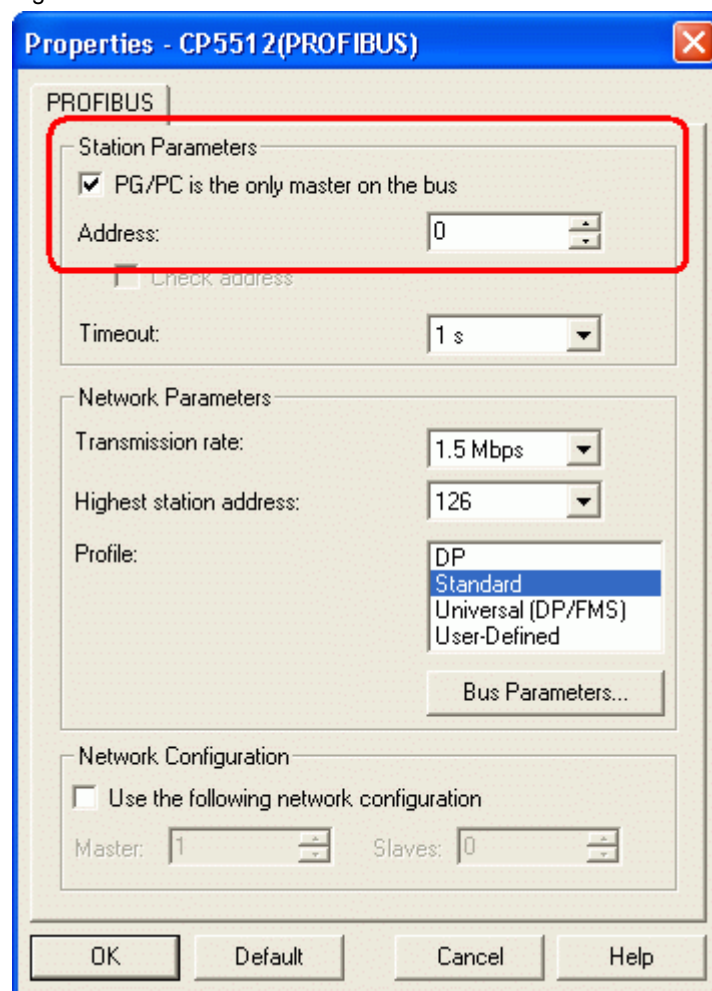
Check the PG/PC interface on your configuration computer.

- In Windows XP
 - "Start > SIMATIC > SIMATIC NET > Set PG-PC interface".
- In STEP 7
 - "Menu bar: Tools > Set PG/PC interface..."

Make sure that the node address is set to "0".

We also recommend that you check the "PG/PC is the only master on the bus" option.

Figure 3-3



4 History

Table 4-1

Version	Date	Amendments
V1.0	25.09.2008	First edition
V1.1	07.01.2009	Addition inserted
V1.2	09.07.2009	Additions inserted Tables changed.