



FAQ • 03/2016

Migration to the TIA Portal

MOBILE PANEL 277F IWLAN V2



<https://support.industry.siemens.com/cs/ww/en/view/75201316>

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1 Introduction

This document guides you through the steps required to migrate a Mobile Panel 277F IWLAN V2 project from SIMATIC STEP 7 V5.5/WinCC flexible to TIA Portal V13.

Note

Further information about configuring the Mobile Panel 277F IWLAN V2 is available in the Support Portal in Entry ID [25702331](#), "Configuration and Implementation of the Mobile Panel 277F IWLAN".

2 Requirements

The following software products are installed in the specified versions or higher.

- For the source project:
 - STEP 7 V5.5 + SP3
 - S7 Distributed Safety V5.4 + SP5
 - WinCC flexible 2008 SP3
 - F Configuration Pack V5.5 SP11
- For the target project:
 - STEP 7 Professional V13 SP1 Update 6
 - STEP 7 Safety Advanced V13 Update 5
 - WinCC Advanced V13 SP1 Update 6

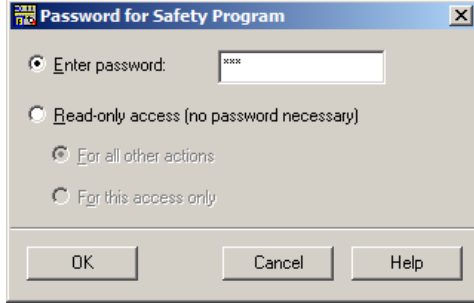
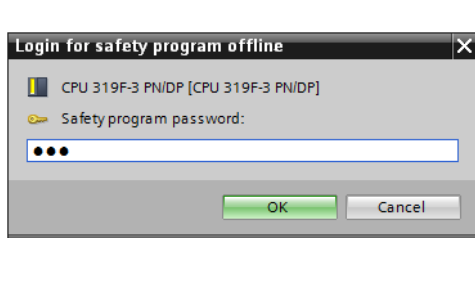
The project is available as a compiled, executable STEP 7 V5.5 project.

3 Migration

Password Querying of the Safety Configuration

At several points of the migration you will be prompted to enter your password for the safety program.

Table 3-1

| STEP 7 V5.5 | TIA Portal V13 |
|---|--|
|  |  |

- When the dialog opens, you enter the password and confirm with "OK". This step will not be executed each time in the following table.

3.1 Preparation in STEP 7

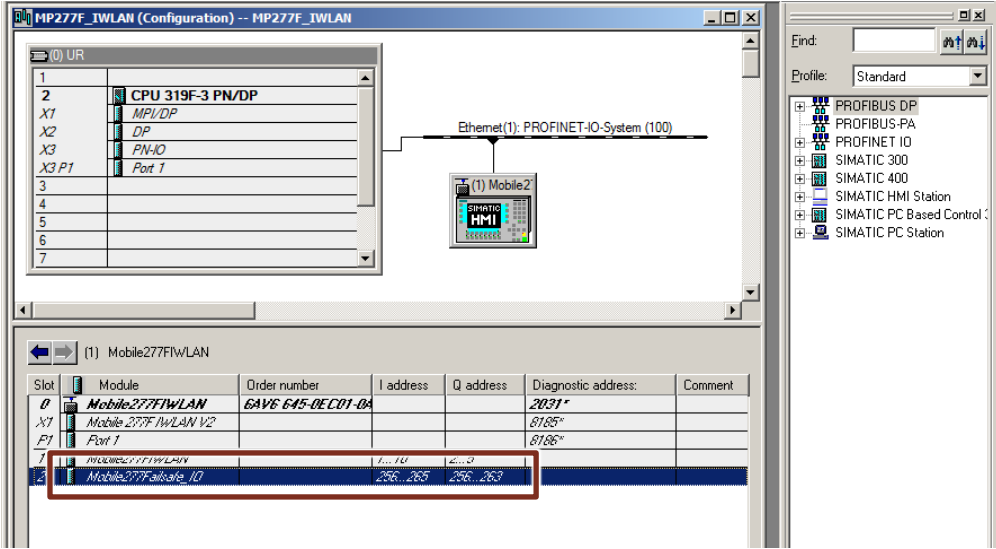
Transfer of configuration parameters

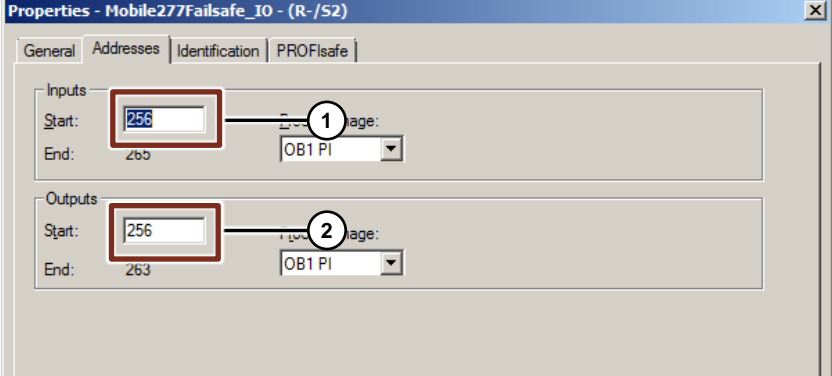
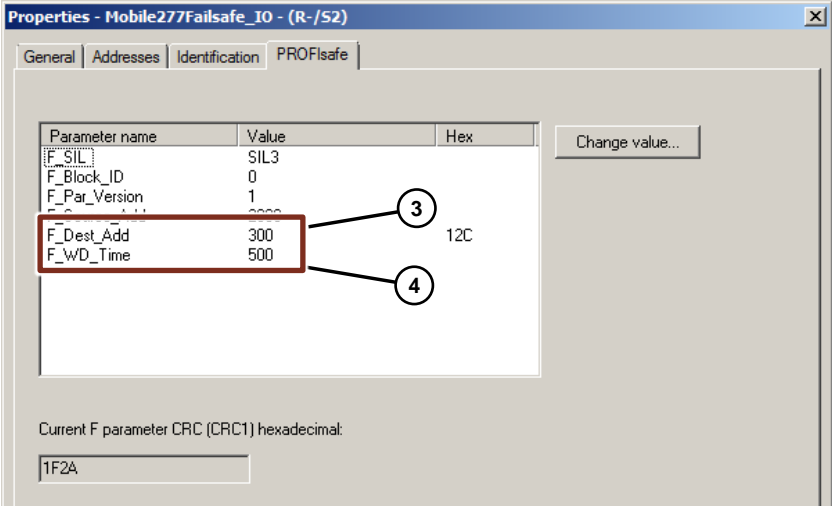
Note the following parameters of the Mobile Panel before migration from the existing STEP 7 configuration.

1. PROFINET F input start address
2. PROFINET F output start address
3. PROFIsafe address (F_Dest_Add)
4. PROFIsafe watchdog time (F_WD_Time)

[Table 3-2](#) shows where to find the relevant parameters in your source project. You must enter these parameters in the migrated project.

Table 3-2

| No. | Action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|--------------------|-----------|--------------|---------------------|-----------|---------------------|---------|---|----------------|--------------------|--|--|-------|--|----|----------------------|--|--|--|-------|--|----|--------|--|--|--|-------|--|---|----------------|--|--------|-------|--|--|---|-----------------------|--|-----------|-----------|--|--|
| 1. | In the SIMATIC Manager you open the Hardware Configuration of your plant and click the GSD file of the Mobile Panel as PROFINET IO node. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | In the table that opens you select the Slot 2 line with the fail-safe parameters. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Slot</th> <th>Module</th> <th>Order number</th> <th>I address</th> <th>Q address</th> <th>Diagnostic address:</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Mobile277FWLAN</td> <td>6AVE 645-0E C01-0A</td> <td></td> <td></td> <td>2031*</td> <td></td> </tr> <tr> <td>X1</td> <td>Mobile 277F IwLAN V2</td> <td></td> <td></td> <td></td> <td>8185*</td> <td></td> </tr> <tr> <td>F1</td> <td>Port 1</td> <td></td> <td></td> <td></td> <td>8186*</td> <td></td> </tr> <tr> <td>1</td> <td>Mobile277FWLAN</td> <td></td> <td>1...10</td> <td>2...2</td> <td></td> <td></td> </tr> <tr style="border: 2px solid red;"> <td>2</td> <td>Mobile277FailSafe_I/O</td> <td></td> <td>256...265</td> <td>256...263</td> <td></td> <td></td> </tr> </tbody> </table> </div> | Slot | Module | Order number | I address | Q address | Diagnostic address: | Comment | 0 | Mobile277FWLAN | 6AVE 645-0E C01-0A | | | 2031* | | X1 | Mobile 277F IwLAN V2 | | | | 8185* | | F1 | Port 1 | | | | 8186* | | 1 | Mobile277FWLAN | | 1...10 | 2...2 | | | 2 | Mobile277FailSafe_I/O | | 256...265 | 256...263 | | |
| Slot | Module | Order number | I address | Q address | Diagnostic address: | Comment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | Mobile277FWLAN | 6AVE 645-0E C01-0A | | | 2031* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X1 | Mobile 277F IwLAN V2 | | | | 8185* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F1 | Port 1 | | | | 8186* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Mobile277FWLAN | | 1...10 | 2...2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Mobile277FailSafe_I/O | | 256...265 | 256...263 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | Right-click to open the pop-up menu and select "Object Properties..." or double-click the table line. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No. | Action |
|-----|--|
| 4. | <p>In the Properties dialog that opens you will find the relevant parameters in the "Addresses" and "PROFIsafe" tabs.</p>  <ul style="list-style-type: none"> • PROFINET input start address (1) • PROFINET output start address (2)  <ul style="list-style-type: none"> • PROFIsafe address (F_Dest_Add) (3) • PROFIsafe watchdog time (F_WD_Time) (4) |

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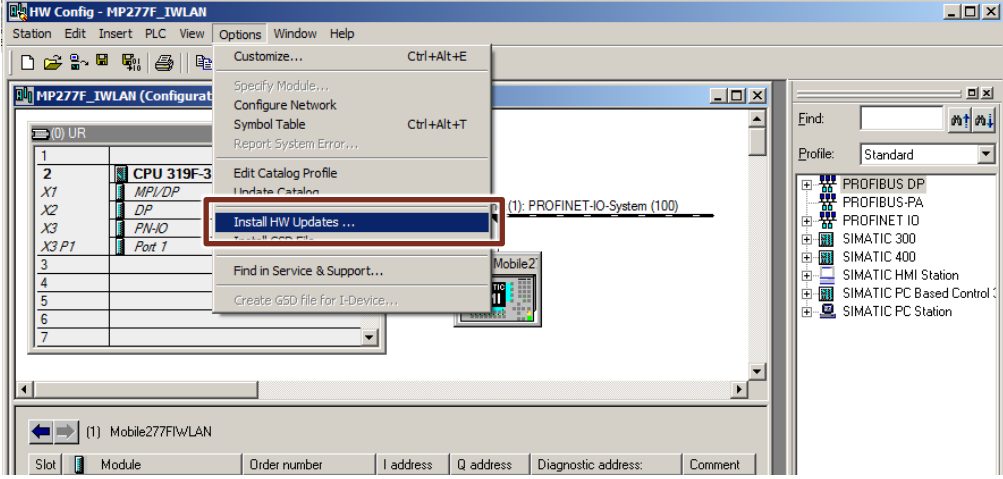
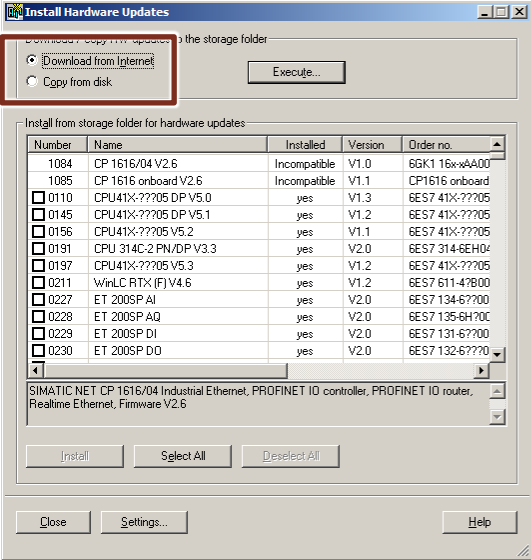
Note

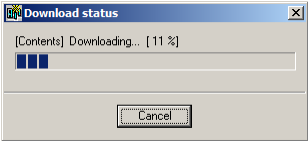
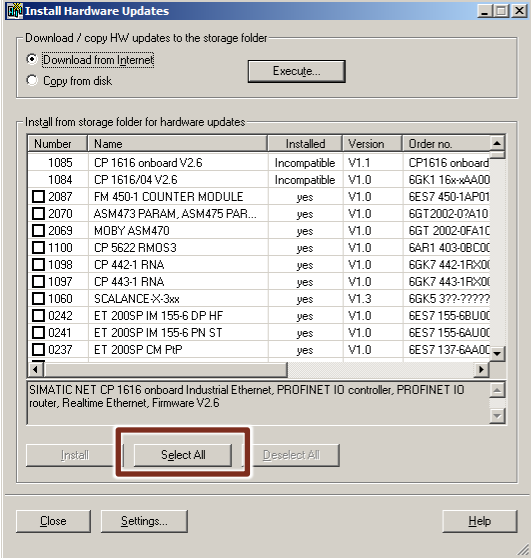
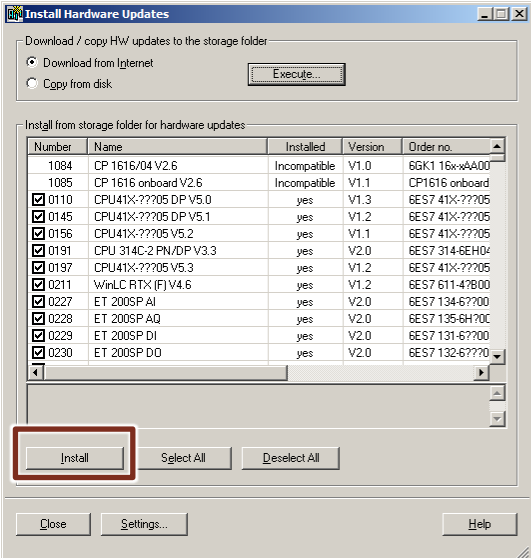
If you cannot see the "PROFIsafe" tab in your STEP 7 Properties dialog, there is an error in the configuration of your Distributed Safety Pack or your F Systems Pack. In this case you install the "[F-Configuration Pack](#)". (Go to the link to obtain information about downloading and installing.)

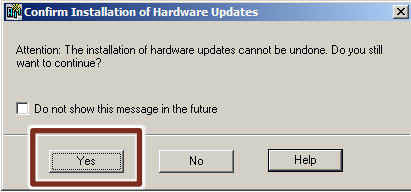
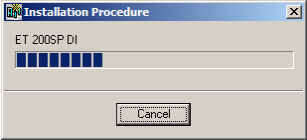
Update the hardware catalog

Make sure your STEP 7 hardware catalog is up to date before starting the migration.

Table 3-3

| No. | Action |
|-----|--|
| 1. | <p>In the SIMATIC Manager you open the hardware configuration and select "Options > Install HW Updates..." from the menu.</p>  <p>The "Install Hardware Updates" dialog opens.</p> |
| 2. | <p>Enable the "Download from internet" option.</p>  <p>Click "Execute..."</p> |

| No. | Action |
|-----|--|
| 3. | <p>The hardware catalog files are downloaded. This procedure can take several minutes.</p>  |
| 4. | <p>Click "Select All" to update all the components.</p>  |
| 5. | <p>Click "Install".</p>  |

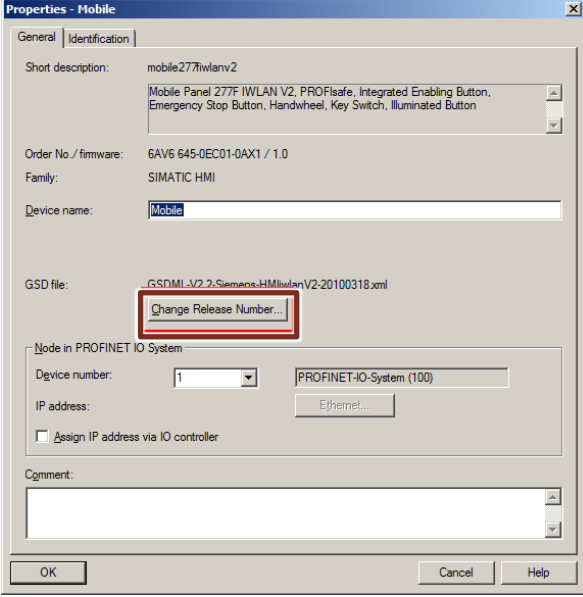
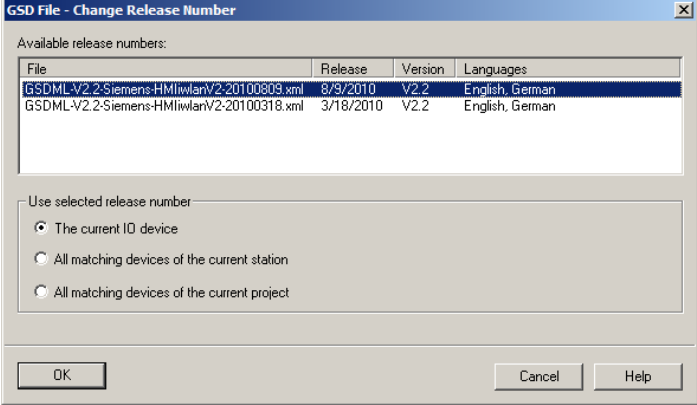
| No. | Action |
|-----|--|
| 6. | <p>Read the safety query. Start the update by clicking "Yes".</p>  <p>Also click "Yes" to confirm the prompt with which all the STEP 7 applications are closed.</p> |
| 7. | <p>The catalog updates will now be installed. This procedure can take several minutes.</p>  |
| 8. | <p>Reboot the SIMATIC Manager after installation has been completed.</p> |

The hardware catalog is now up to date.

Update the version of the GSD file

Table 3-4

| No. | Action |
|-----|---|
| 1. | <p>In the HW Config you mark the icon of your GSDML module, right-click to open the pop-up menu and select "Properties".</p> <p>Check the value for "GSD file". If the value is "GSDML-V2.2-Siemens-HMIwlanV2-20100809.xml", then your GSD file is already up to date and you can continue with section 3.2. Otherwise continue with the remaining steps in this table.</p> |
| 2. | <p>Click the "Change Release Number..." button.</p> |

| No. | Action |
|-----|--|
| |  |
| 3. | <p>In the "GSD File - Change Release Number" dialog that opens you select release "8/9/2010" from the GSD files shown.</p>  <p>Press "OK".</p> |
| 4. | <p>Also confirm the dialog of the GSDML Properties with "OK". Then recompile the STEP 7 project and save it.</p> |

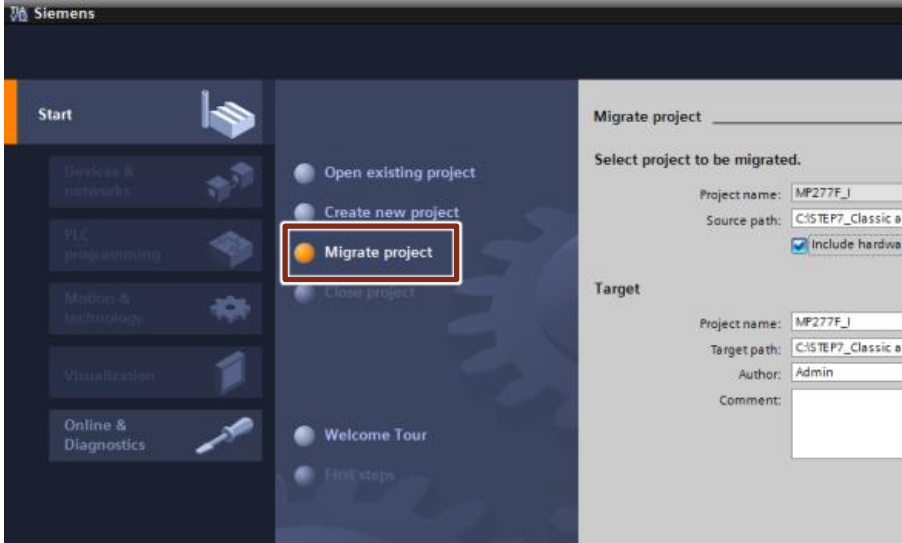
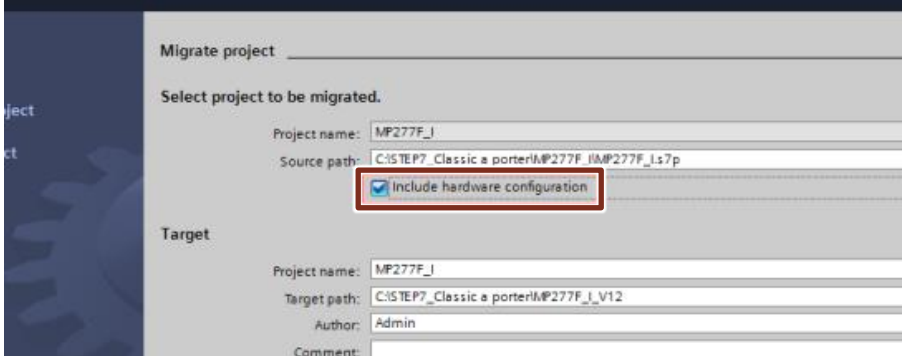
This brings the revision of the GSD file up to date.

3.2 Migration of the Project

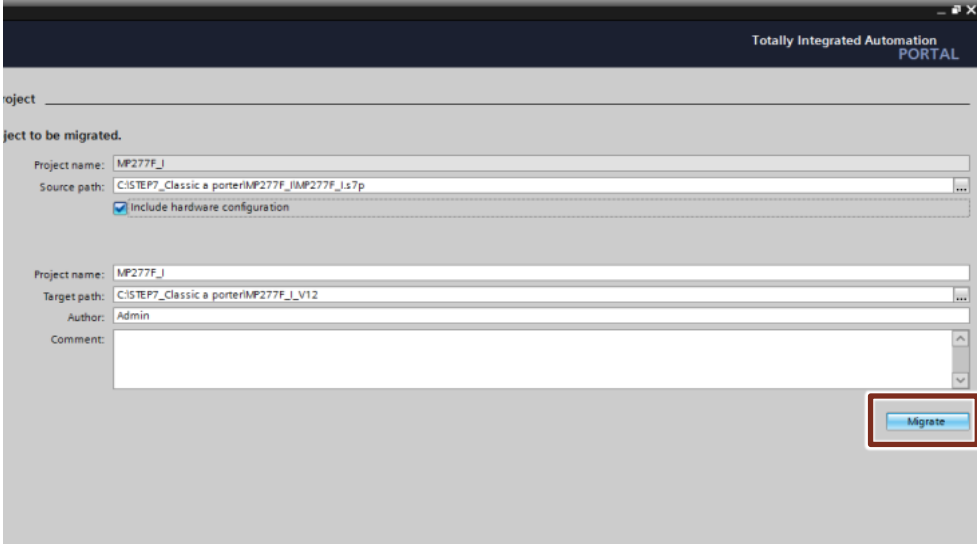
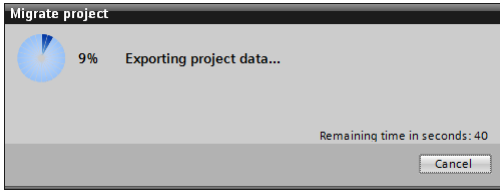
Now you can start with the migration of the project.

Configuration in the TIA Portal

Table 3-5

| No. | Action |
|-----|---|
| 1. | Open the TIA Portal V13. |
| 2. | <p>In the Portal view you select the "Migrate project" command and navigate to your STEP 7 project.</p>  |
| 3. | <p>Enable the "Include hardware configuration" option.</p>  |

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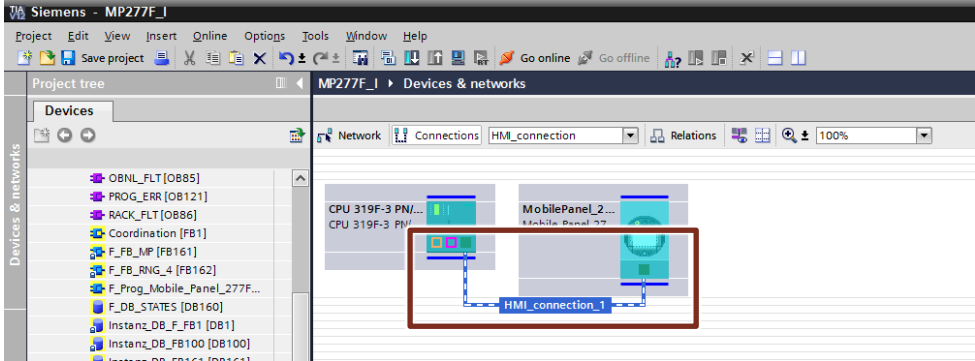
| No. | Action |
|-----|--|
| 4. | <p>Click "Migrate".</p>  |
| 5. | <p>The migration is executed.</p>  |
| 6. | <p>The migration terminates with a number of warnings which you can ignore for the time being.</p> |
| 7. | <p>You must now save the migrated project with a new name, close it and then open it again.</p> |

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Create new connections

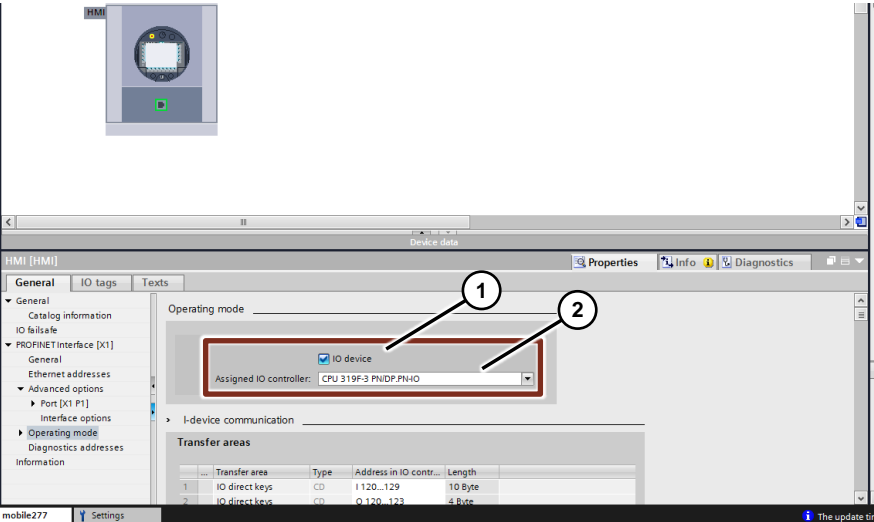
Table 3-6

| No. | Action |
|-----|---|
| 1. | Open the Network view of your project. |
| 2. | Click the Connections button to enable Connection mode. |

| No. | Action |
|-----|--|
| 3. | <p>Create a connection between the CPU and the Mobile Panel by clicking the PROFINET interface of the CPU, keeping the mouse button pressed and dragging a connection to the interface of the Mobile Panel.</p>  |

Activate the panel

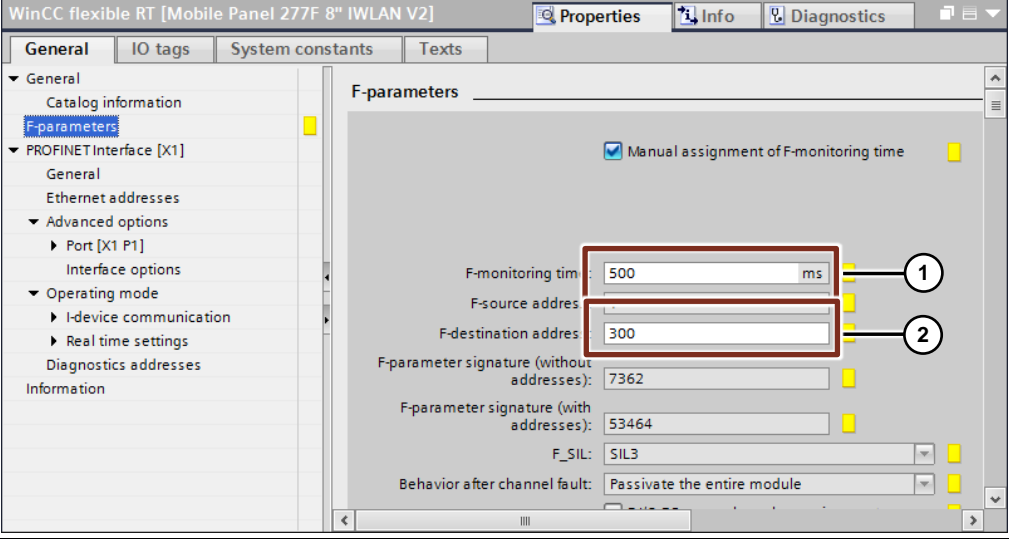
Table 3-7

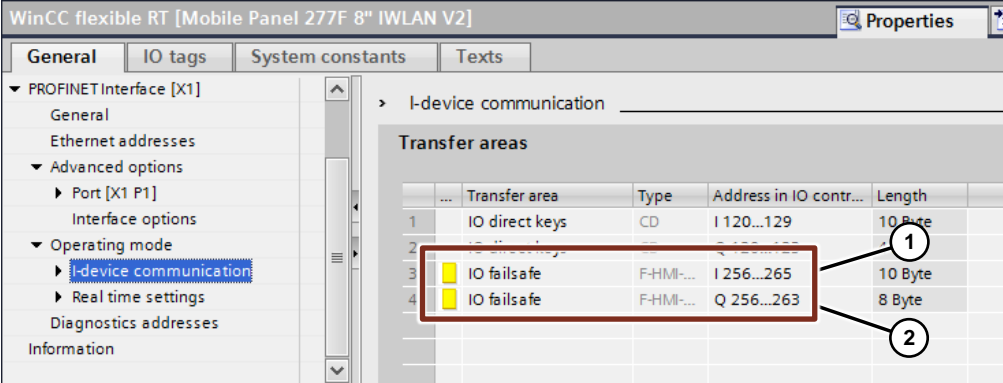
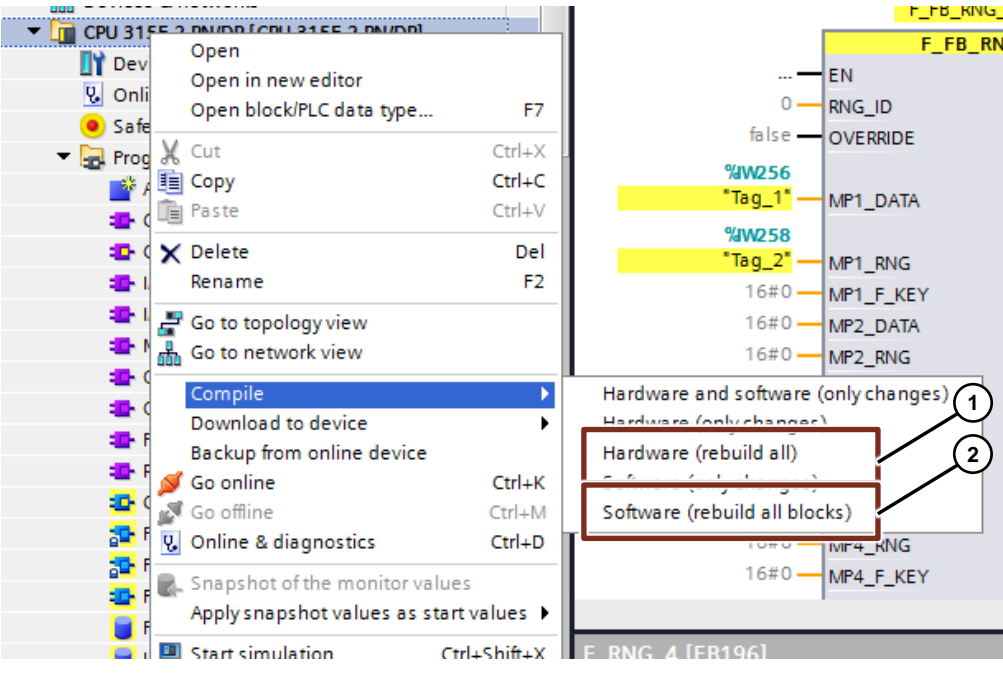
| No. | Action |
|-----|---|
| 1. | Mark the Mobile Panel and open its Device view in the TIA Portal. |
| 2. | In the area navigation of the inspector window you select "Operating mode". |
| 3. | <p>Enable the "IO device" (1) option to activate the panel as PROFI-safe device.</p>  |
| 4. | In the "Assigned IO controller:" (2) drop-down list box you select the controller to which the panel is to be connected and confirm your selection. |
| 5. | Save your project. |

Check the F configuration

Enter the F parameters of your STEP 7 project, which you noted under [Transfer of configuration parameters](#), page 4, in the TIA Portal V13 project.

Table 3-8

| No. | Action |
|-----|--|
| 1. | In the TIA Portal V13 you open the Device view of the Mobile Panel. |
| 2. | In the table area of the Device view you select the line "WinCC flexible RT". |
| 3. | In the inspector window you open the "Properties" tab and select "F-parameter" in the area navigation. |
| 4. | Enable the option "Manual assignment of F-monitoring time". |
| 5. | <p>Transfer the following parameters from your STEP 7 V5.5 configuration into the TIA Portal V13:</p> <p>(1) The PROFIsafe watchdog time "F_WD_Time" to "F-monitoring time"</p> <p>(2) The PROFIsafe address "F_Dest_Add" to "F-destination address"</p>  |
| 6. | In the area navigation you switch to "PROFINET Interface [X1] -> Operating mode -> I-device communication". |

| No. | Action |
|-----|---|
| 7. | <p>Transfer the following parameters from your STEP 7 V5.5 configuration into the TIA Portal V13:</p> <p>(1) PROFINET input start address to "Transfer areas > IO failsafe"</p> <p>(2) PROFINET output start address to "Transfer areas > IO failsafe"</p>  |
| 8. | <p>In the Project tree you select your CPU.</p> |
| 9. | <p>In the pop-up menu you first select "Compile -> Hardware (rebuild all)" (1) and then "Compile -> Software (rebuild all blocks)" (2).</p>  |
| 10. | <p>Save your project.</p> |

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Note

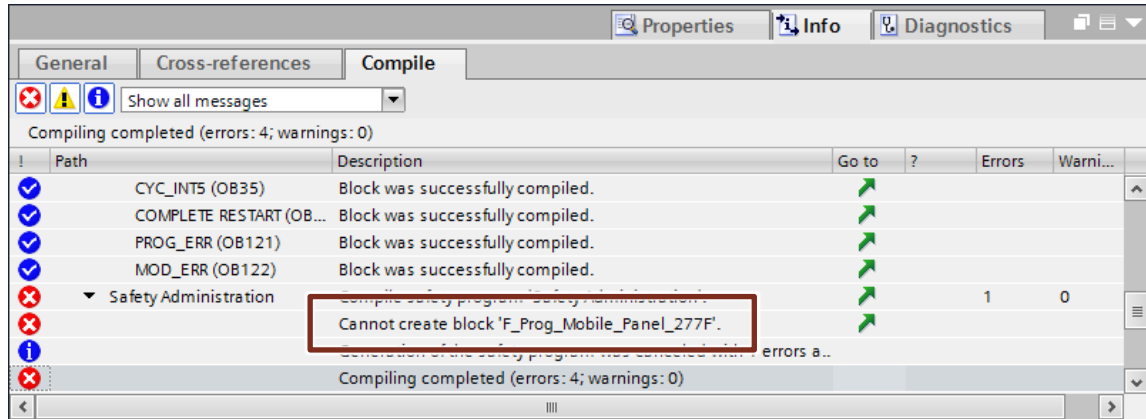
Also make sure that the F destination address of the configuration (Table 3-8, Step 5, Item 2) is identical to the value set on the Mobile Panel.

On the panel, the F destination address is stored in the Control Panel under "PROFIsafe -> Address".

Update the F-FBs

If you now compile the CPU configuration, you get the error message indicating that blocks that use the **F-FBs** of the panel cannot be compiled.

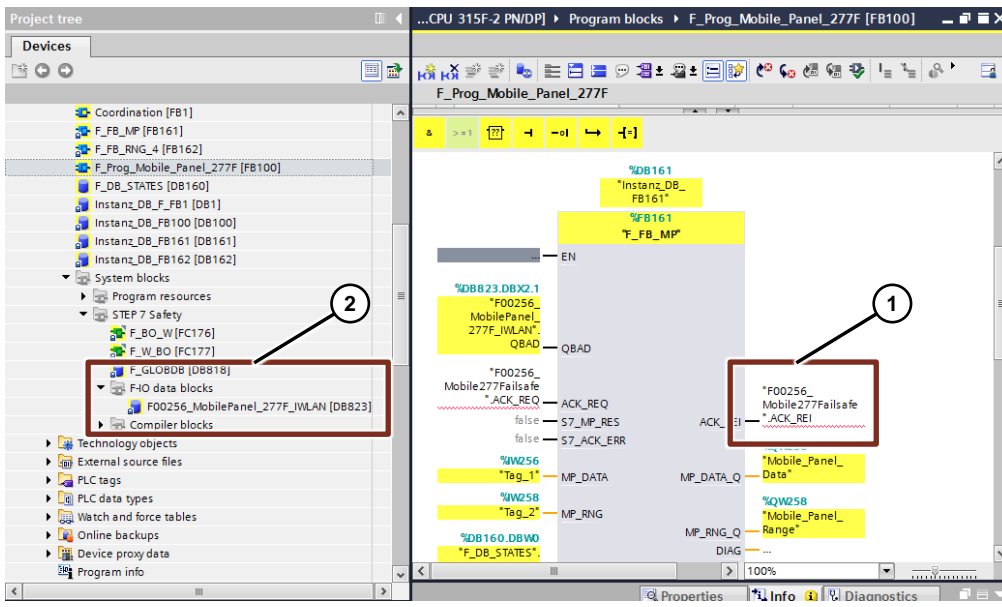
Figure 3-1

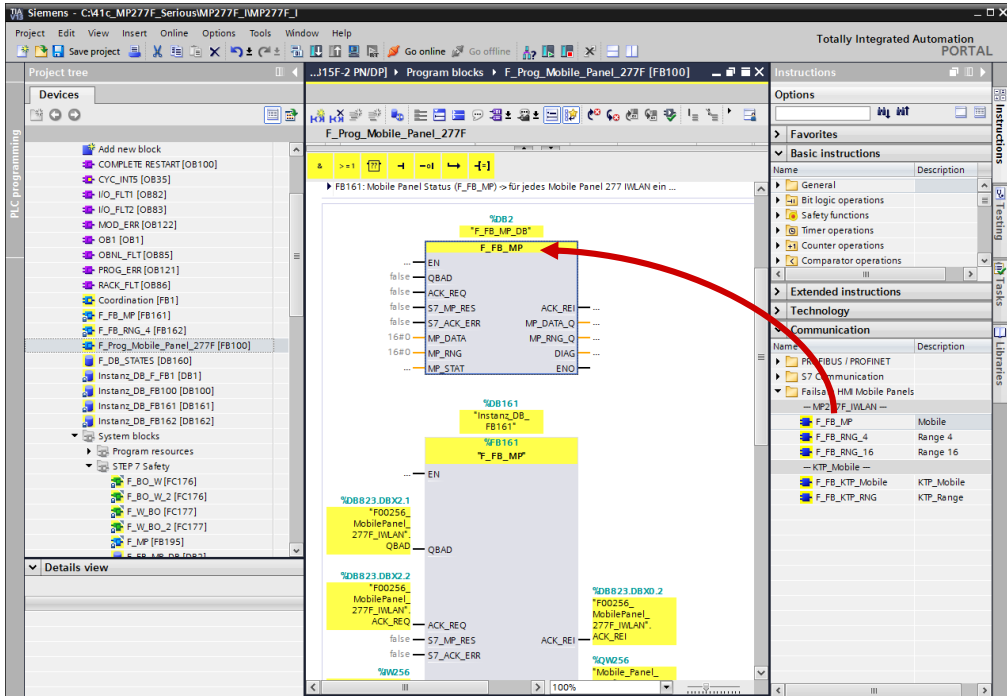
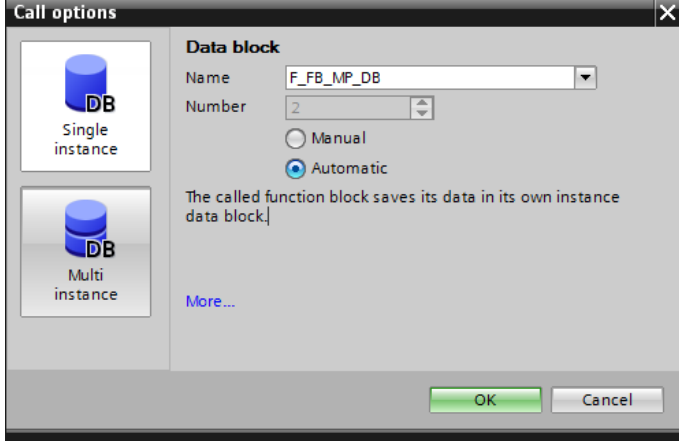


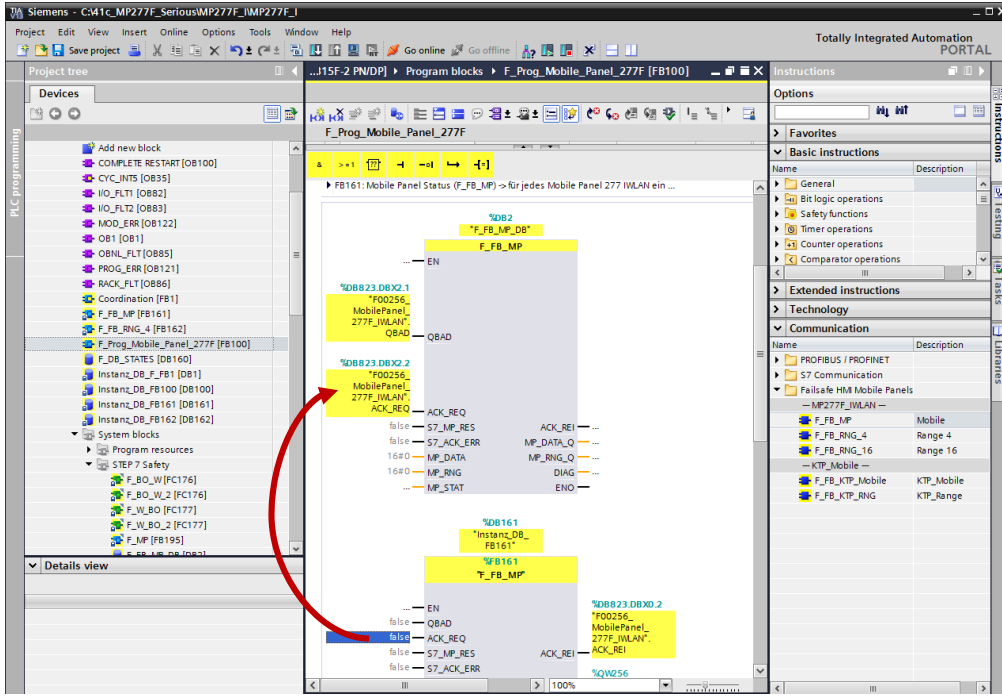
These F blocks used in your project must be replaced by TIA Portal V13 F blocks.

Table 3-9

| No. | Action |
|-----|--|
| 1. | Open the "Instructions" task card and then the "Communication" palette. |
| 2. | Open the library path "Failsafe HMI Mobile Panels-> MP277F_IWLAN". |
| 3. | Open the FB that reported the error during compilation. The networks that include F-FBs called with errors are marked with a red icon. |

| No. | Action |
|-----|--|
| 4. | <p>Names for interface parameters (1) underscored red refer to tags whose DB has changed through the migration.</p>  <p>Delete these tags and replace them with the relevant tags of the migrated F-FB. The migrated F-DB with its tags can be found under "System blocks -> STEP 7 Safety -> F-I/O DBs -> F00xxx_MobilePanel_277F_IWLAN" (2).</p> <p>The value of "xxx" (here: "256") depends on the address configured in the device configuration of the MP.</p> <p>Properly defined tags are highlighted in yellow.</p> |

| No. | Action |
|-----|--|
| 5. | <p>Drag and drop the new version of the relevant F-FB from the "Communication" library into the defective network.</p>  |
| 6. | <p>Assign a data block to the F-FB.</p>  <p>Acknowledge the dialog with "OK".</p> |

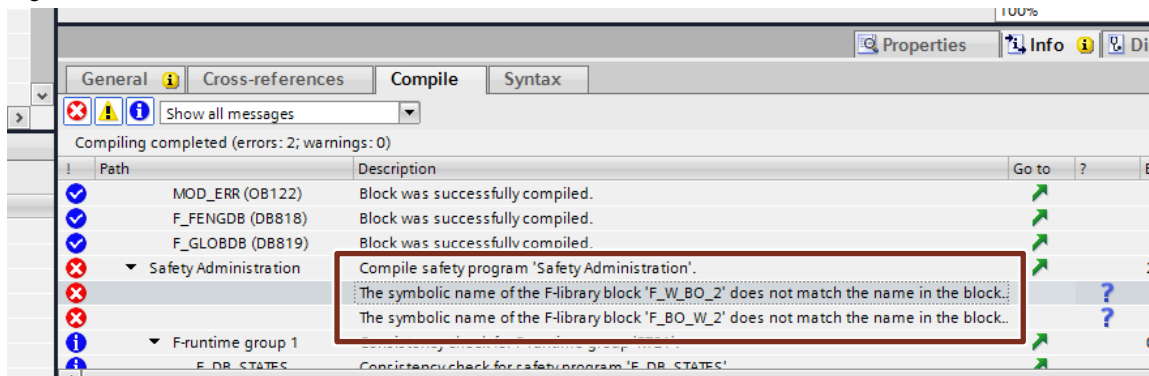
| No. | Action |
|-----|---|
| 7. | <p>Parameterize the interface of the new F-FB with the same parameters as the old FFB. You can make the procedure easier by dragging and dropping the interface parameters of the old FFB one after the other to the interface of the new F-FB.</p>  <p>Then delete the old version of the F-FB.</p> |
| 8. | Repeat the procedure for all networks in which errors of the F-FBs were reported. |

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Delete superfluous F libraries

The following error message might be displayed during compiling: "The symbolic name of the F-library block '...' does not match the name in the block header."

Figure 3-2

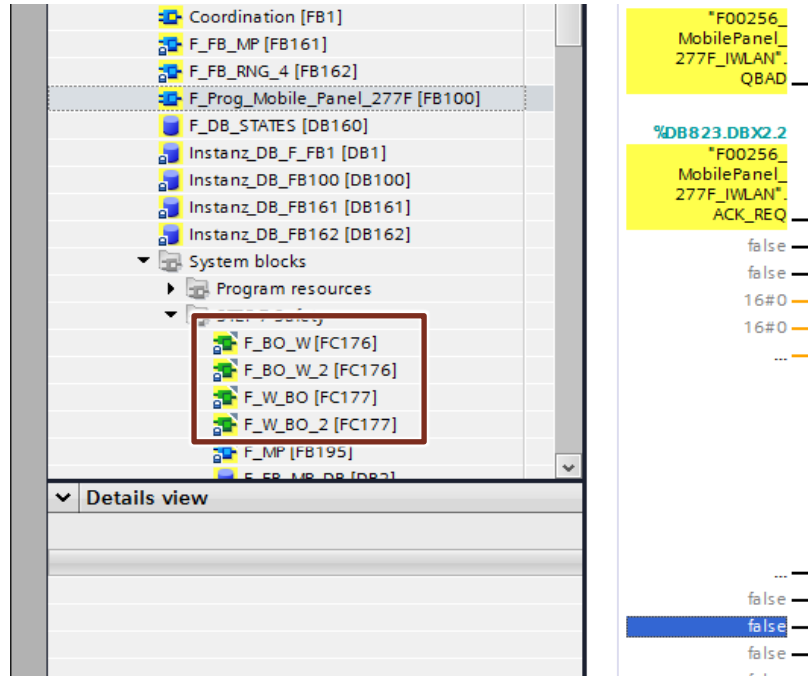


The error message is caused by a version conflict of the F-FB, which leads to a duplication of the blocks in the configuration.

In this case you delete from the "STEP 7 Safety" folder of the project tree both the original and the duplicate of the F-FCs that have caused the error message. In this

example they are the F-FCs "F_W_BO", "F_W_BO_2", "F_BO_W" and "F_BO_W_2". (See [Figure 3-3](#))

Figure 3-3



Compile and download the configurations (hardware and software)

Recompile the hardware and software of the CPU and the panel completely and download the configurations to the devices.

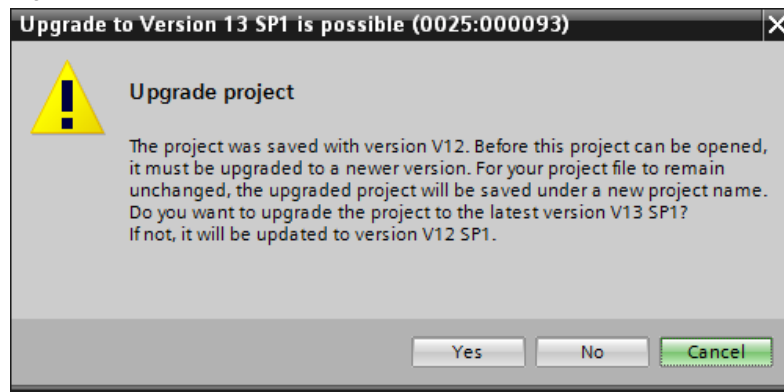
This completes the migration procedure.

4 Remark about Upgrading from TIA Portal V12 to V13 SP1

In order to upgrade a Mobile Panel MP 277F IWLAN project from TIA Portal V12 to V13 SP1 you open the project or the project archive in TIA Portal V13.

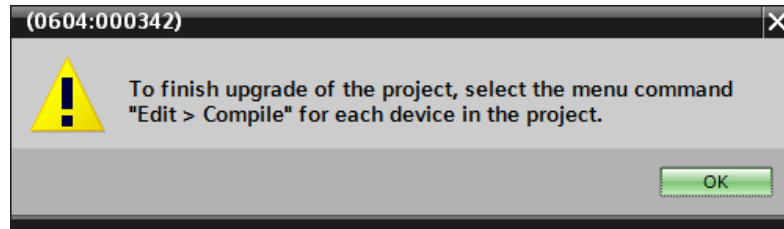
You are queried whether you really want upgrade the project to V13 SP1.

Figure 4-1



Answer the security query with "Yes".

Figure 4-2



You are informed that after opening or dearchiving the project you have to compile all the devices again to conclude the upgrade.

5 Links to the Siemens Industry Online Support Portal

Table 5-1

| | Topic | Address |
|----|---|---|
| 1. | Where can you download the F FBs for the Mobile Panel 277F IWLAN for the Safety option of STEP 7 V5.5, STEP 7 Professional V11 and STEP 7 Professional V12? | http://support.automation.siemens.com/WW/view/en/45787660 |
| 2. | Hardware Support Packages (HSP) for WinCC (TIA Portal) | http://support.automation.siemens.com/WW/view/en/60497002 |