

FAQ • 05/2014

Migration to the TIA Portal

Mobile Panel 277F IWLAN

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1 Introduction

This document guides you through the steps required to migrate a Mobile Panel 277F IWLAN project from SIMATIC STEP 7 to TIA Portal V11 and V12.

Contents

This FAQ response describes three ways of migrating/upgrading a Mobile Panel 277F V2 IWLAN project.

- Chapter <u>3</u>: <u>STEP 7 V5.5 → WinCC V11</u>
- Chapter <u>4</u>: <u>STEP 7 V5.5 → WinCC V12</u>
- Chapter <u>5</u>: <u>WinCC V11 \rightarrow WinCC V12</u>

Software requirements

The relevant software must be installed on your computer for each type of migration or upgrade. The software requirements are provided in each chapter.

TIA Portal, WinCC and STEP 7

When "TIA Portal V11" or "TIA Portal V12" is mentioned in this document, we refer respectively to "STEP 7 V11/V12" or "WinCC V11/V12" each in combination with their safety components.

2 Recurring Processes

The processes here occur in several of the migration scenarios described below. Which steps you have to perform for which scenario is given in each chapter in the "Requirements" section.

2.1 Transfer of Configuration Parameters

Note the following parameters before migrating from the configuration.

- 1. PROFIsafe address (F_Dest_Add)
- 2. PROFIsafe watchdog time (F_WD_Time)
- PROFINET name (name of the Mobile Panel IO device). Make sure that the name is DNS compliant (see <u>DNS compliance of the</u> <u>PROFINET device name</u>, page <u>8</u>)
- 4. PROFINET F input start address
- 5. PROFINET F output start address

The sections below show where to find the relevant parameters in your source projects. The information is available at different points depending on the software version. You must enter these parameters in the migrated project.

The instructions for this are in each section.

- Parameter transfer from a STEP 7 V5.5 project, page 5
- Parameter transfer from a TIA Portal V11 project, page 7

Parameter transfer from a STEP 7 V5.5 project

Proceed as follows if your source project was created with STEP 7 V5.5.

Table 2-1			
No.	Action		
1.	In the SIMATIC Manager you open the Hardware Configuration of your plant and click the Mobile Panel as PROFINET IO node.		
2.	In the table that opens you select the Slot 2 line with the fail-safe parameters.		
	Image: Standard S		
3.	Right-click to open the pop-up menu and select "Object Properties" or double-click the table line.		
4.	In the Properties dialog that opens you will find the relevant parameters in the tabs "General", "Addresses" and "PROFIsafe".		
	General Addresses Identification PROFilsafe		
	Short description: Mobile277Failsafe_IO Mobile277Failsafe_IO		
	1. PROFINET name		

No.	Action	
2.	Properties - Mobile277Failsafe_IO - (R-/52) General Addresses Identification PROFilsafe Inputs Start: 265 Outputs Start: 256 Ptool age: End: 263 OB1 PI 1. PROFINET input start address 2. PROFINET output start address 3. PROFINET o	X
3.	Properties - Mobile227Failsafe_10 - (R-/52) General Addresses Identification PROFIsafe Parameter name Value Hex Change value F_SIL1 SIL3 F.Block_ID 0 F_Dest_Add 2000 1 1 F_Dest_Add 300 12C 2 Current F parameter CRC (CRC1) hexadecimal: 1F2A 1 1	X
	 PROFIsafe address (F_Dest_Add) PROFIsafe watchdog time (F_WD_Time) 	

Parameter transfer from a TIA Portal V11 project

Proceed as follows if your source project was created with WinCC V11 (TIA Portal).



No.		Action
3.	Properties Mobile 277F allsafe_IO General > General PROFIsafe Identification & Maintenance IO addresses	Info I Diagnostics I/O addresses Input addresses Process image: OB1-P1 Interrupt OB number: 40 Output addresses Start address: 256 Process image: Output addresses Interrupt OB number: 20 Process image: 0E1-P1
	1. PROFINET inp 2. PROFINET out	ut start address put start address

DNS compliance of the PROFINET device name

The following requirements must be fulfilled for the device name to be DNS compliant.

- Limit of a total of 255 characters (letters, numbers, hyphens and periods).
- The name must begin with a letter.
- The name must end with a letter or number.
- A name component of the device name, a character string between two periods, for example, must not be longer than 63 characters.
- No special characters like umlauts, parentheses, underscore, slash, space etc. are permitted.

2.2 Installation of the Version-dependent F Blocks (F-FBs)

To ensure successful migration, the FFBs for the Mobile Panel 277F IWLAN for the Safety option of STEP 7 Professional V11 or V12 must be installed.

The FFBs are available for downloading in the Siemens Industry Online Support Portal. (see Chapter $\underline{6}$)

Table 2-3

No.	Action
1.	Download the FFBs from Entry ID <u>45787660</u> in the Siemens Industry Online Support Portal. Make sure you select the correct library (V11 or V12) for your migration task.
2.	Unpack the ZIP archive in a directory of your choice.
3.	Run the Setup of the installation file.

You can only call the F blocks via the global library in the WinCC (TIA Portal).

2.3 Update of the STEP 7 Hardware Catalog

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

T - I- I		0 4
rap	ie.	2-4

No.	Action			
1.	In the SIMATIC Manager you open the hardware configuration and select "Options > Install HW Updates" from the menu.			
	WW Config - MP2277F_IVLAN Station Edit Insert PLC View Options Window Help Customize Configure Network Symbol Table Symbol Table Virtual Cost Table Customize Polate: Catalog Profile X1 MPUOP X3 PN-40 Install W Updates X3 PT Find in Service & Support Main Service & Support Sold File for I-Device Sold File for I-Device Create GSD File for I-Device Total CSD File Total CSD File Total CSD File Total CSD File <th>Eind: Manual Andrew Standard ProFile: Standard PROFIBUS DP PROFIBUS PA PROFIBUS PA PROFINET IO PROFINET IO PROFINET IO PROFINET IO SIMATIC 400 SIMATIC 400 SIMATIC 400 SIMATIC PC Based Control (SIMATIC PC Station SIMATIC PC Station SIMATIC PC Station SIMATIC PC Station</th>	Eind: Manual Andrew Standard ProFile: Standard PROFIBUS DP PROFIBUS PA PROFIBUS PA PROFINET IO PROFINET IO PROFINET IO PROFINET IO SIMATIC 400 SIMATIC 400 SIMATIC 400 SIMATIC PC Based Control (SIMATIC PC Station SIMATIC PC Station SIMATIC PC Station SIMATIC PC Station		
	I) Mobile 277FIWLAN Slot Module III Module IIII Module IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	PROFIBUS-DP slaves for SIMATIC S7, M7, and C7 (distributed rack)		
	Allows the download and installation of HW updates. The "Install Hardware Updates" dialog opens.			

No.	Action		
2.	Enable the "Download from Internet" option or the "Copy from disk" option depending on the source you want to use for the update.		
	MInstall Hardware Updates		
	Download / Cupy nw upuates to the storage folder		
	C Cgpy from disk Execute		
	Install from storage folder for hardware updates		
	Number Name Installed Version Urder no. 1084 CP1616/04V2.6 Incompatible V1.0 66K116/w4A00 1095 CP1516 path and V2.6 Incompatible V1.0 F01516 path and V2.6		
	□ 0110 CPU41X:??05 DP V5.0 yes V1.3 6ES7 41X:??05 □ 0145 CPU41X:??05 DP V5.1 yes V1.3 6ES7 41X:??05		
	0156 CPU41X:??205 V5.2 yes V1.1 6ES7 41X:??205 0191 CPU 314C 2 PN/DP V3.3 yes V2.0 6ES7 314-6EH04		
	0197 CPU41X:???05 V5.3 yes V1.2 6ES7 41X:??05 0211 which CRTX (F) V4.6 yes V1.2 6ES7 41X:??05		
	□ U227 E1 ZUUSPAI yes V2.0 6ES7134-67/00 □ 0228 ET 2005PAQ yes V2.0 6ES7135-6H200 □ 0229 ET 2005P DI wes V2.0 FES7131-56H200		
	□ 2020 ET 2005PD0 yes V20 6ES713267770 +		
	SIMATIC NET CP 1616/04 Industrial Ethernet, PROFINET ID controller, PROFINET ID router, Realtime Ethernet, Firmware V2.6		
	Install Select All Deselect All		
	Close Settings Help		
	Click "Execute "		
3	The bardware catalog files are downloaded. This can take several minutes depending on the		
	internet connection.		
	Contents] Downloading [11 %]		
	Cancel		
4.	Click "Select All" to update all the components.		
	Download / copy HW updates		
	Download from Internet Execute		
	- Install from storane folder for hardware undates		
	Number Name Installed Version Order no.		
	1084 CP 1616/04 V2.6 Incompatible V1.0 6GK1 16xxAA00 □ 2087 FM 450-1 COUNTER MODULE yes V1.0 6ES7 450-14P01		
	2070 ASM473 PARAM, ASM475 PAR yes V1.0 6GT2002-07A10 2069 MOBY ASM470 yes V1.0 6GT 2002-0FA10		
	□ 1100 CP 5622 RM053 yes V1.0 6AR1 40308C00 □ 1098 CP 442-1 RNA yes V1.0 66K7 4421RX00 □ 1097 CP 442-1 RNA yes V1.0 66K7 4421RX00		
	1060 SCALANCEX-3xx yes V1.3 G6K5 3777777 0242 ET 200SP1M 155-6 DP HF yes V1.0 GEST 155-68U00		
	0241 ET 200SP IM 1556 FN ST yes V1.0 6ES7 155-6AU00 0237 ET 200SP CM PIP yes V1.0 6ES7 137-6A400 -		
	SIMATIC NET CP_1616 onboard Industrial Ethemet, PROFINET IO controller, PROFINET IO		
	Install Sglect All Deselect All		
	Close Settings		

No.	Action
5.	Click "Install".
	mitnstall Hardware Updates _□ ×
	Download / copy HW updates to the storage folder
	C Download from Internet C Cgpy from disk Execute
	Install from storage folder for hardware updates
	Number Name Installed Version Order no. 1084 CP 1616/04 V2.6 Incompatible V1.0 6GK11 f6wxAA00
	1085 CP 1616 onboard V2.6 Incompatible V1.1 CP1616 onboard ☑ 0110 CPU41X;??05 DP V5.0 yes V1.3 6657 41X;??05
	☑ 0145 DPU41X:??/db DP V5.1 yes V1.2 6ES7 41X:??/db ☑ 0156 CPU41X:??/05 V5.2 yes V1.1 6ES7 41X:??/05 ☑ 0196 CPU41X:??/05 V5.2 yes V1.1 6ES7 41X:??/05
	☑ 1131 DPU 314/2/2 PM/DP V3.3 ges V.2.0 bcb/3 14/6/LPM/4 ☑ 1137 DPU 314/2 PM/DP V3.3 ges V1.2 bcb/3 14/6/LPM/4 ☑ 1137 Lydia (LT) PM/A ges V1.2 bcb/3 14/6/LPM ☑ 1021 Lydia (LT) PM/A ges V1.2 bcb/3 14/6/LPM
	Image: Construction of the second
	☑ 0229 ET 200SP DI yes V2.0 6ES7 131-67700 ☑ 0230 ET 200SP DD yes V2.0 6ES7 132-67770 ↓
	Install Select All Deselect All
	Close Settings
6.	Answer the confirmation prompt by clicking "Yes".
	Confirm Installation of Hardware Updates
	Attention: The installation of hardware updates cannot be undone. Do you still want to continue?
	Do not show this message in the future
	Yes No Help
	Also click "Yes" to confirm the prompt with which all the STEP 7 applications are closed.
7.	The catalog updates will now be installed. This procedure can take several minutes.
	ET 2005P DI
8.	Reboot the SIMATIC Manager after installation has been completed.

2.4 Password Querying of the Safety Configuration

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

Table	2-5
rabic	20

Password for Safety Program Enter password: Enter password: Bead-only access (no password necessary) Eor all other actions For this access only OK Cancel Help Dialog for password input, STEP 7 V5.5	Login for safety program offline CPU 319F-3 PN/DP [CPU 319F-3 PN/DP] Safety program password: OK Cancel Dialog for password input, TIA Portal V11

• 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 STEP 7 V5.5 \rightarrow WinCC V11

This chapter explains how to migrate a project with a Mobile Panel 277F IWLAN from SIMATIC STEP 7 V5.5 to WinCC V11.

3.1 Requirements

Software configuration

The following software configuration must be installed for the migration procedure.

- For the source project:
 - STEP 7 V5.5 + SP3
 - S7 Distributed Safety V5.4 + SP5
 - WinCC flexible 2008 SP3
- For the target project:
 - STEP 7 Professional V11 SP2 Update 5
 - STEP 7 Safety Advanced V11
 - WinCC Advanced V11 SP2 Update 5

Error-free source project

The current project was generated error free in STEP 7 V5.5 and WinCC flexible 2008.

Noting the F parameters of the configuration

You have noted the F parameters of the STEP 7 configuration, see <u>Transfer of</u> <u>Configuration Parameters</u>, page $\underline{4}$.

Installed F blocks

The F blocks for TIA Portal V11 are installed.

See <u>Installation of the Version-dependent F Blocks (F-FBs)</u>, page <u>8</u> for the procedure.

Updating the hardware catalog in STEP 7

The hardware catalog has been updated according to <u>Update of the STEP 7</u> <u>Hardware Catalog</u>, page $\underline{9}$.

3.2 Migration of the Project

Installation of the Hardware Support Packages (HSP) for WinCC (TIA Portal) and of the GSDML file for the Mobile Panel 277F IWLAN V2

The GSDML file for the Mobile Panel 277F IWLAN V2 must be installed for the migration procedure. This and the GSDML file for the Mobile Panel 277F IWLAN (RFID Tag) are part of the Hardware Support Package which you can download from the Siemens Industry Online Support Portal. ($\$)

No.	Action		
1.	Download the HSP for WinCC (TIA Portal) from Entry ID 60497002 in the Siemens Industry Online Portal.		
2.	Unpack the ZIP archive in a directory of your choice.		
3.	Open the Project view in WinCC (TIA Portal).		
4.	Select the menu command "Options > Install general station description file (GSD)".		
	Project Edit View Insert Online Options Tools Window Help Save project Image Project tree Devices Image: Show reference text Global libraries Image: SimATIC Card Reader		
5.	A dialog box opens.		
6.	Select the GSDML file "gsdml-v2.2-siemens-hmiiwlanv2-20100809.xml" and then click "Install".		
	Install Cencel		

Migrate STEP 7 project to WinCC V11

Table 3-2

No.	Action				
1.	In the Start port	al of Win	CC (TIA Portal) you select	the "Migrate projec	t" action.
	VA Siemens				_ 1
					Totally Integrated Automation PORTAI
	Start			Migrate project	
	Devices &	*	Open existing project	Select project to be migrate	d.
	nouvoiks		Create new project	Project name: Source path:	D:\03 FAO\01 Neu\Mobile Panel 277F IWLAN V2
	PLC programming		🥚 Migrate project	Source part.	Exclude hardware configuration
	NO 100 -0			Target	
	Visualization			Project name:	MP277F_I
	Online &		Welcome Tour	Target path:	D:103_FAQ101_Neu1Mobile Panel 277F IWLAN V2
	Diagnostics	1	First steps	Author: Comment:	
			Installed software		
			e Help		Migrate
			🚱 User interface language		
	Project view				
2.	Choose the ST	EP 7 proj	ect to be migrated.		
3.	Disable the "Ex	clude hai	rdware configuration" option	n.	
4.	Specify a project	ct name a	and target path for the new	project.	
5.	Then click "Mig	rate".			

Rebuild the project





Replace FFBs

No.	Action			
1.	Open the "Libraries" task card.			
2.	There you open the "Global libraries" palette and navigate to the folder with the F blocks for the Mobile Panel.			
3.	Replace the blocks which caused the compilation error (in our example: "F_FB_MP") by dragging and dropping the blocks from the global librar navigation.	"F_FB_RNG_4" and y to the project		
	Project tree	Libraries 📑 🔳 🕨		
		Options		
	Safety Administration Image: Add new block Add new block Image: Add new block Image: Add new bloc	Project library Global libraries Global libraries Button-and-Switches Monitoring-and-control-objects Monitoring-and-control-objects Me277F_IWLAN Gar Types Far Ty		
4.	When you insert an F block, you get the following message.			

No.	Action		
Use the option "Replace existing objects and move to this location".			
	Paste (0080:000001)		
	Conflicts detected during pasting		
	Some of the objects you want to paste already exist here or in a different group.		
	How do you want to continue?		
	Rename and paste objects Replace existing objects and move to this location		
	Use for all objects.		
	OK Cancel		
5.	Repeat these steps for the other F blocks for the Mobile Panel you are using in your project.		
6.	When you have finished replacing the FFBs, mark the PLC and in the pop-up menu you select and run the function "Compile > Software (rebuild all blocks)".		

GSD file - change version



No.	Action
5.	Now you can also select one of the options offered. In this example we have chosen "All matching IO devices of the current project".
	GSD file - change revision X
	Available revisions
	GSD file Version Revision
	gsdml-v2.2-siemens-hmiiwlanv2-20100318.xml v2.2 3/18/2010 12:00 AM
	0500ml-v2.22-siements-hmilwilenv22201008092xml v2.2 8/9/2010 12:00 AM
	Use selected revision for the current IO device All matching IO devices of the IO system All matching IO devices of the current project
	Compatibility information
	Mobile277FIWLAN: Change version 'gsdml-v2.2-siemens-hmiiwlanv2-20100318.xml'.
6.	Confirm the selection with "OK".
7.	To update the change in the Device configuration, close the Device configuration window and open it again.
8.	The figure below shows the new view of the changed GSDML module.

Change the F parameters

Now transfer the F parameters of the SIMATIC STEP 7 configuration you noted previously (see <u>Transfer of Configuration Parameters</u>, page <u>4</u>) into the TIA Portal V11 project.

1. Open the Device view of the GSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the Mobile Panel. Image: Comparison of the CSDML file of the	No.	Action			
2. Open the table area of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select the "Properties" tab. 6. Mobile277failsafe_IO 7. Properties "Linfo V Diagnostics I address of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select the "Properties" tab. 5. In the area navigation you select the "Properties" tab. 6. Mobile277failsafe_IO 7. Properties "Linfo V Diagnostics I address of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select "PROFIsafe". 6. Mobile277failsafe_IO 7. Properties "Linfo V Diagnostics I address of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select the "Properties" tab. 5. In the area navigation you select the "Properties" tab. 6. Wobile277failsafe_IO 7. Properties "Linfo V Diagnostics I address of the Device overview. 9. Description I address of the De	1.	Open the Device view of the GSDML file of the Mobile Panel.			
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Device overview Rack Side address Q address Type Order no. Mobile 277F MLAN V2 0 0.0 2031* Mobile 277F MLAN V2 0.0×1 8185* Mobile 277F MLAN V2 0.0×1 Mobile 277F MLAN V2 0.0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1 0×1					
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Abble 277F MULAN V2 0 0 X1 8185" mobile 2775 Marv2 Mobile 277Failsafe_10 2 256265 256263 Mubile 277Failsafe_10 Mobile 277Failsafe_10 2 256265 256263 Mubile 277Failsafe_10 Mobile 277Failsafe_10 2 256265 256263 Mubile 277Failsafe_10 General Central Ce		✓ mobile277fiwlan 0 0 2031* Mobile Panel 277F IWLAN V2 6AV6 645-0EC01-0AX			
Abbile277Failsafe_IO 2 256265 256263 Mobile277Failsafe_IO Mobile277Failsafe_IO Copen the table area of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select "PROFIsafe". 6. Mobile277Failsafe_IO General F_Bort_Sister F_Bort_Sister F_Bort_Sister F_Par_CRC_WithourAddresses F_Par_CRC_YITHER F_Par_CRC_YITHER F_Par_CRC_YITHER F_Par_CRC_YITHER F_Par_CRC_WIthourAddresses F_Par_CRC_YITHER F_Par		Mobile 277F IWLAN V2 0 0 X1 8185* mobile 277fiwlanv2 Mobile 277FIWLAN I 1 110 25 Mobile 277Standard IO			
 2. Open the table area of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select "PROFIsafe". 6. Mobile277failsafe O General F_Block_ID: 0 		Mobile 277 Fails a fe_IO 2 256263 Mobile 277 Fails a fe_IO			
Kobile277Failsafe_00 General 2. Open the table area of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_10"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select "PROFIsafe". 6. Mobile277Failsafe_10 General F_BICK_I0: F_Bick_I0: Image: F_Slute Fille Filles In didresses F_Bick_I0: F_Bick_I0: F_Bick_I0: F_Bick_I0: Image: Filles Files					
2. Open the table area of the Device overview. 3. Mark the module in Slot 2 (in our example: "Mobile277failsafe_IO"). 4. In the inspector window you select the "Properties" tab. 5. In the area navigation you select "PROFIsafe". 6. Mobile277failsafe_IO General Feoretal					
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6. Mobile277Failsafe_IO General General FCOFIsafe Identification & Maintenance I/O addresses F_Block_ID: F_Bar_Version: F_Dest_Add: 2000 F_Dest_Add: 300 F_Par_CRC_WithoutAddresses 7362 F_Par_CRC: F_Mo_Time F_WD_Time	5.	In the area navigation you select "PROFIsafe".			
General FROFIsafe Identification & Maintenance I/O addresses F_Block_ID: 0 F_Par_Version: F_Source_Add: 2000 F_Par_CRC_WithoutAddresses F_Par_CRC_WithoutAddresses F_Par_CRC_????8 F_Par_CRC F_Par_CRC <	6.	Mobile277Failsafe_IO			
General PROFIsafe Identification & Maintenance F_SIL: I/O addresses F_Block_ID: 0 F_Par_Version: 1 F_Source_Add: 2000 F_Par_Version: F_Dest_Add: 300 F_Par_CRC; 7978 F_Par_CRC; 7978 F_Par_CRC; 7978 F_IO DB manual number assignment C		General			
I/O addresses F_SIL: SIL3 I F_Block_ID: 0 I I F_Par_Version: 1 I I F_Dest_Add: 2000 I I F_Dest_Add: 300 I I F_Par_CRC_WithoutAddresses: 7362 I I F_Par_CRC WithoutAddresses: 7362 I I F_Par_CRC: 7978 I I I I F_Par_CRC: 7978 I I I I Fullo DB manual number assignment I I I I I		General PROFIsafe Identification & Maintenance			
F_Block_ID: 0 F_Par_Version: 1 F_Source_Add: 2000 F_Dest_Add: 300 F_Par_CRC_WithoutAddresses: 7362 Manual setting of F_WD_Time 1 F_Par_CRC: 7978		I/O addresses F_SIL: SIL3			
F_Par_Version: 1 F_Source_Add: 2000 F_Dest_Add: 300 F_Par_CRC_WithoutAddresses: 7362 Manual setting of F_WD_Time 1 F_WD_Time: 500 Manual setting of F_WD_Time 2 F_Par_CRC: 7978 F_HO DB manual number assignment 1		F_Block_ID: 0			
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F_WD_Time: 500 ms 2 F_Par_CRC: 7978 F-I/O DB manual number assignment		Manual setting of F_WD_Time			
F_Par_CRC: 7978		F_WD_Time: 500 ms			
F4/O DB manual number assignment		F_Par_CRC: 7978			
		🗖 F-I/O DB manual number assignment 📃			
Enable the "Manual setting of F_VVD_IIme" option.		Enable the "Manual setting of F_WD_Time" option.			

No.	Action		
7.	Enter the noted values for "F_Dest_Add" and "F_WD_Time" in the relevant fields (1) and (2) respectively.		
8.	In the area navigation you select "General".		
9.	C III Device data		
	mobile277fiwlan Properties Life Diagnostics General		
	PROFINET interface [X1] General Ethernet addresses Name: mobile 277 fiwlan		
	Enter the device name in the "Name" field (3).		

Behavior in the case of checksum errors

Proceed as follows if you get a checksum error during compilation of the HMI configuration in the TIA Portal V11.

Table 3-7







No.	Action
12.	In the Network view table you select the second local connection and in the inspector window you likewise select the interface "IE_CP_1, PROFINET_Interface".
	M2277F_1 > Devices & networks _ P = X P Topology view A Network view P Device view P Network Connection P A Relations C 2 100% P
	Y Local connection name Local end point Local ID (hex) Partner ID (hex) Partner Connection type 2_1 Image: CPU 319F-3 PNUP HMI connection HMI_connection Image: CPU 319F-3 PNU_ HMI connection
	HMI connection: HMI_connection HMI_connection: HMI_connection General
	General Name: Mare: Mare: Protocol setting Connection path Access point Time synchronization Local
	End print End print Inter Sec: IE_CP_1, FROFINET_Inter Inter Sec: IE_CP_1, FROFINET_Inter EthermetUP Subnet: Ethermet(1) Address: 172.16.0.2 Find connection path
13.	Switch to the Device view of the Mobile Panel.
14.	In the inspector window you open the "Properties" tab and select "PROFINET interface (X1)" in the area navigation.
15.	Under "IP address" and "Subnet mask" you enter the IP parameters of your panel. Properties
	IE_CP_1 [PROFINET interface] General General
	PROFINET Interface (X1) PROFINET Interface (X1)
	Interface networked with Subnet: Ethernet(1) Add new subnet
	 IP protocol Use IP protocol Set IP address in the project IP address: 172 . 16 . 34 .210 Subnet mask: 255 . 255 . 0 .0 Outer address: 0 .0 .0 .0 Set IP address using a different method
	PROFINET

The configuration can now be compiled without errors.

Compile and download the configurations (hardware and software)

Table 3-8









This completes the migration procedure.

4 STEP 7 V5.5 \rightarrow WinCC V12

This chapter explains how to migrate a Mobile Panel 277F IWLAN from SIMATIC STEP 7 V5.5 to WinCC V12.

4.1 Requirements

Software configuration

The following software configuration must be installed for the migration procedure.

- For the source project:
 - STEP 7 V5.5 + SP3
 - S7 Distributed Safety V5.4 + SP5
 - WinCC flexible 2008 SP3
- For the target project:
 - STEP 7 Professional V12 SP1 Update 3
 - STEP 7 Safety Advanced V12
 - WinCC Advanced V12 SP1 Update 3

General requirements

The project is compiled as an executable STEP 7 V5.5 project.

Noting the F parameters of the configuration

You have noted the F parameters of the STEP 7 configuration, see <u>Transfer of</u> <u>Configuration Parameters</u>, page <u>4</u>.

Installed F blocks

The F blocks for TIA Portal V12 are installed. See <u>Installation of the Version-dependent F Blocks (F-FBs)</u>, page <u>8</u> for the procedure.

Updating the hardware catalog in STEP 7

The hardware catalog has been updated according to <u>Update of the STEP 7</u> <u>Hardware Catalog</u>, page <u>9</u>.

4.2 Migration of the Project

Update the version of the GSD file in STEP 7 V5.5

This step is necessary only if the GSD file of your STEP 7 project is currently not up to date.

Table 4-1

No.	Action
1.	In the HW Config you mark the icon of your GSDML module, right-click to open the pop-up menu and select "Properties".
	Properties - Mobile X General identification
2.	OK Click "Change Release Number". In the "GSD File - Change Release Number" dialog that opens you select release "8/9/2010" from the GSD files shown. Splie - Change Release Number " dialog that opens you select release "8/9/2010" from the GSD files shown. Splie - Change Release Number " dialog that opens you select release "8/9/2010" Splie - Change Release Number " dialog that opens you select release "8/9/2010" Splie - Change Release Number Valido release number Valido release number OK the current project OK".
3.	Also confirm the Properties dialog with "OK". Then recompile the project.

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

Project migration

Table 4-2

No.	Action		
1.	Open the TIA Portal V12.		
2.	In the Portal view you select the "Migrate project" command and navigate to your STEP 7 project.		
	Virt Come and sing project Come and sing project Come and sing project Migrate project <		
3.	Enable the "Include hardware configuration" option. Migrate project Select project to be migrated. Project name: M#277F_J Source path: CSTEPClassic a porter/M#277F_JA#277F		

No.	Action
4.	Click "Migrate".
	- # X Totally Integrated Automation PORTAL
	Ing project a regisct a regisct <t< td=""></t<>
5.	The migration is carried out. Migrate project 9% Exporting project data Remaining time in seconds: 40 Cancel
6.	The migration terminates with a number of warnings which you can ignore for the time being.
7.	Now it is imperative that you close the migrated project and then open it again!

Create new connections

Table 4-3 No. Action 1. Open the Network view of your project. M Siemens - MP277F_I Project Edit View Insert Online Options Tools Window Help MP277F_I
 Devices & networks Devices 00 💦 Network 🔛 Connections HM_connection 💌 🗛 Relations 🚟 🖽 🍳 ± 100% • OBNL_FLT[OBB5]
 PROG_FLR [OB121]
 RACK_FLT[OB86]
 Coordination [FB1]
 F_FB_MP [FB161]
 F_FR_RNC_4 [FB162]
 F_Prog_Mobile_Panel_277F...
 F_DB_STATES [DB160]
 Instanc_DB_FB100 [DB100]
 Instanc_DB_FB100 [DB100] CPU 319F-3 PN/... CPU 319F-3 PN/... MobilePanel_2... Mobile Panel 27...

No.	Action
2.	Click the Connections button to enable Connection mode.
3.	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.

Activate the panel

Table 4-4

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.	Enable the "IO device" option to activate the panel as PROFIsafe device.		
	Image: Second and Second an		
	General Ethernet addresses Advanced options York(XP P1		
	Interface options > L-device communication		
4.	In the "Assigned IO controller:" drop-down list box you select the controller to which the panel is to be connected and confirm your selection.		
5.	Save your project.		

Change the F parameters

Enter the F parameters of your STEP 7 project, which you noted under <u>Transfer of</u> <u>Configuration Parameters</u>, page <u>4</u>, in the TIA Portal V12 project.

No.	Action		
1.	In the TIA Portal V12 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".		





4.3 Finalizing

Update the FFBs

When compiling the CPU configuration, you might get the error message indicating that various **FFBs** need a valid password to be compiled.

Figure 4-1



These F blocks used in your project must be replaced by TIA Portal V12 F blocks.

Table 4-6

No.	Action
1.	Open the "Libraries" task card.
2.	Open the "Global libraries" palette.
3.	Navigate to the library path "Failsafe HMI Mobile Panels > Master copies > MP277F_IWLAN > S7-300/400 > V1.0".



Delete old F instance DBs

When compiling the CPU configuration, you might get the error message indicating that various **instance DBs** (connected to FFBs) cannot be compiled.

Figure 4-2



Proceed as follows to delete the faulty blocks.

Table 4-7



The blocks will automatically be rebuilt correctly during the next compilation procedure.

Update the F DBs

When compiling the CPU configuration you might get the error message indicating that several tags like "QBAD", "ACK_REQ" or "ACK_REI" of a configured DB are not defined. The DB that caused the error (in our example: "F00256_Mobile277failsafe") is the "F IO DB" defined in the F parameters of the

panel.

Figure 4-3						
			Show tooltips (context- available)	sensitive	e help is	
iel 277F 8" I	Gene	ral Cross-references	Compile			
	Compili	ing completed (errors: 4: warni	ingr: 0)			
s	Deele	ng completed (errors. 4, warm	Description	C - +-		Freezer
5	- Idui		Plack was successfully semailed	3010	14	Circis
		DENCLIFET (OB85)	Block was successfully compiled.	- G		0
~		RACK_FLI (UD00)	Block was successionly complied.	-		0
>		F_FD_RING_10 (FD105)	Block is know-how protected and current. For this reason, it was			0
		F_FB_RNG_4 (FB162)	Block is know-how protected and current. For this reason, it wa.			0
	V	F00256_IOfailsate (DB2	Block was successfully compiled.	~		0
	0	F_FB_MP (FB161)	Block is know-how protected and current. For this reason, it wa.			0
11- II-	\odot	Instanz_DB_FB161 (DB1	Block was successfully compiled.	~		0
~		Instanz_DB_FB162 (DB1	Block was successfully compiled.	~		0
	0	▼ F_Prog_Mobile_Panel_2		7		3
1000	0	Netzwerk 2	Tag "F00256_Mobile277Failsafe".QBAD not defined.		?	1
	0	Netzwerk 2	Tag "F00256 Mobile277Failsafe".ACK REQ not defined.		?	1
	i i	Netzwerk 2	Tag "F00256 Mobile277Failsafe" ACK REI not defined.		2	1
	lă l	Instanz DB FB100 (DB1	Block was successfully compiled.			0
	L L	Conditional (CD-1)				0
		Instanz DB E EB1 (DB1)	Block was successfully compiled			0
	10	CYC INTS (OB35)	Block was successfully compiled			0
		Eafaty Administration	Compile cafety program 'Safety Administration'			1
		Sarcementstration	Complicipate or program pare or Authinistration :			

Table 4-8

No.	Action			
1.	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 in the area navigation you select the "General" tab and then the "F-parameter" item.			
4.	Under "F-IO DB-name" you will find the correct name of the data block.			
5.	In the Project tree you open the folder of your CPU and the subfolder "Program blocks > System blocks > STEP 7 Safety >F-IO data blocks".			
6.	Select the data block located there and right-click to open the pop-up menu.			
7.	Select the "Rename" command and assign the block the name entered under "F-IO DB- name".			

Compile and download the configurations (hardware and software)

Table 4-9









This completes the migration procedure.

5 WinCC V11 \rightarrow WinCC V12

This chapter explains how to upgrade a Mobile Panel 277F IWLAN project from WinCC V11 to WinCC V12.

5.1 Requirements

Software configuration

The following software configuration must be installed for the upgrade procedure.

- For the target project:
 - STEP 7 Professional V12 SP1 Update 3
 - STEP 7 Safety Advanced V12 Update 1
 - WinCC Advanced V12 SP1 Update 3

It is not necessary to have STEP 7 V11 or WinCC V11 installed.

General requirements

The project is compiled as an executable TIA Portal V11 project.

Noting the F parameters of the configuration

You have noted the F parameters of the TIA Portal V11 configuration, see <u>Transfer</u> of <u>Configuration Parameters</u>, page $\underline{4}$.

Installed F blocks

The F blocks for TIA Portal V12 are installed.

See <u>Installation of the Version-dependent F Blocks (F-FBs)</u>, page <u>8</u> for the procedure.

5.2 Upgrade of the Project

In the procedure we describe here, both the TIA project and the configuration of the panel will be upgraded to version V12.

Open and upgrade the project

Table 5-1

No.	Action		
1.	Open the TIA Portal V12 use it to download the project you created with version V11.		
	Start Open existing project		
	Devices & Open existing project Path Last ch		
	PLC programming Migrate project		
	Motion & Close project		
	Visualization Visualization First steps		
	Online & Diagnostics Installed software		
	Help Browse Open		
	🚯 User interface language		
	▶ Project view Opened project: C:\STEP7_Classic a porter\MP277F_L_V12\MP277F_I\MP277F_I		
	Note: Do <i>not</i> use the menu command "Migrate project".		
Ζ.	Select the Project tab and then the Opgrade command.		
	₩ Siemens - MP277F_I Project Edit View Insert Online Ontions Tools Window Help		
	••• Open •••• Open •••••••••••••••••••••••••••		
	Close Ctrl+W		
	Save as Ctrl+Shift+S CFU 319F-3 PN/DP ▼ 🖽 🍏 🖽 CFU 319F-3 PN/DP		
	Delete project Ctrl+E Archive Retrieve		
	Card Reader/USB memory Memory card file K		
	Print Ctrl+P Print preview Y		
	C:InochnversuchIMP277F_IIMP277F_I 0 1 C:InochnvIMP277F_I_V12_SP1_Update_31 C:InochnverIMP277F_I_V12_SP1_Update_31 C:InochnverIMP277F_I_V12_SP1_Update_33 C:Iversuch_V111v12WP277F_I_WP277F_I		
	After conversion the TIA Portal automatically opens the upgraded version of your project.		

No.	Action		
3.	You get a message indicating that to complete the conversion you must recompile the project.		
4.	Acknowledge the message with "OK", but only run the compilation after you have performed the following configuration steps.		

Change the Mobile Panel

Table 5-2

No.	Action			
1.	Open the Device overview of the Mobile Panel and in the inspector window you select the "Properties" tab and in the area navigation you select "General".			
2.	Click the "Change device/version" button.			
	W277F_LV12_SP1_Update_3_2 > mobile277 [Mobile Panel 277F 8" IWLAN V2] Image: Compared State Stat			
	Advanced options Port [X1 P1] Interface options Operating mode Disgnostics addresses Information Comment: velocity			



Activate panel

Table 5-3

No.	Action		
1.	Open the Device view of the Mobile Panel.		
2.	In the inspector window you open the "Properties" tab and in the area navigation you select the "General" tab and then the "Operating mode" item.		

No.	Action		
3.	Enable the "IO device" option.		
	Device data		
	HMI [HMI] 🕲 Properties 🕲 Info 🚯 🖞 Diagnostics 💷 🖛 🛩		
	General 10 tags Texts General Operating mode		
4.	In the "Assigned IO controller:" drop-down list box you select the CPU to which the panel is to be connected (in our example: "CPU 319F-3 PN/DP.PN-IO") and confirm your selection.		
5.	Now save your project.		

Delete the GSDML module

Table 5-4

No.	Action	
1.	In the Network view you mark the GSDML module.	
	M227F_[[V1]) Devices & networks Image: Network Image: Network <tr< th=""><th></th></tr<>	
2.	Right-click to open the pop-up menu and select the	"Delete" command.

Finalizing

Now perform the steps in section <u>4.3</u>, <u>Finalizing</u>.

This completes the migration procedure.

6

Links to the Siemens Industry Online Support Portal

Table 6-1

	Торіс	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