

Weighing technology

FAQs SIWAREX WP241

How do I program several SIWAREX WP241 in one project?

V1.0 June 2021

How do I program several SIWAREX WP241 in one project?

The WP241 configuration package include several ready for use example projects for one WP241 used with S7-1200 CPU and stand alone. The projects are available for different TIA Portal versions.

This TIA Portal ready for use projects have been developed in order to connect several scales to a 1200-CPU firmware version 4 and newer which is connected to a panel, it has been developed for use with TIA Portal V15.1 and newer.

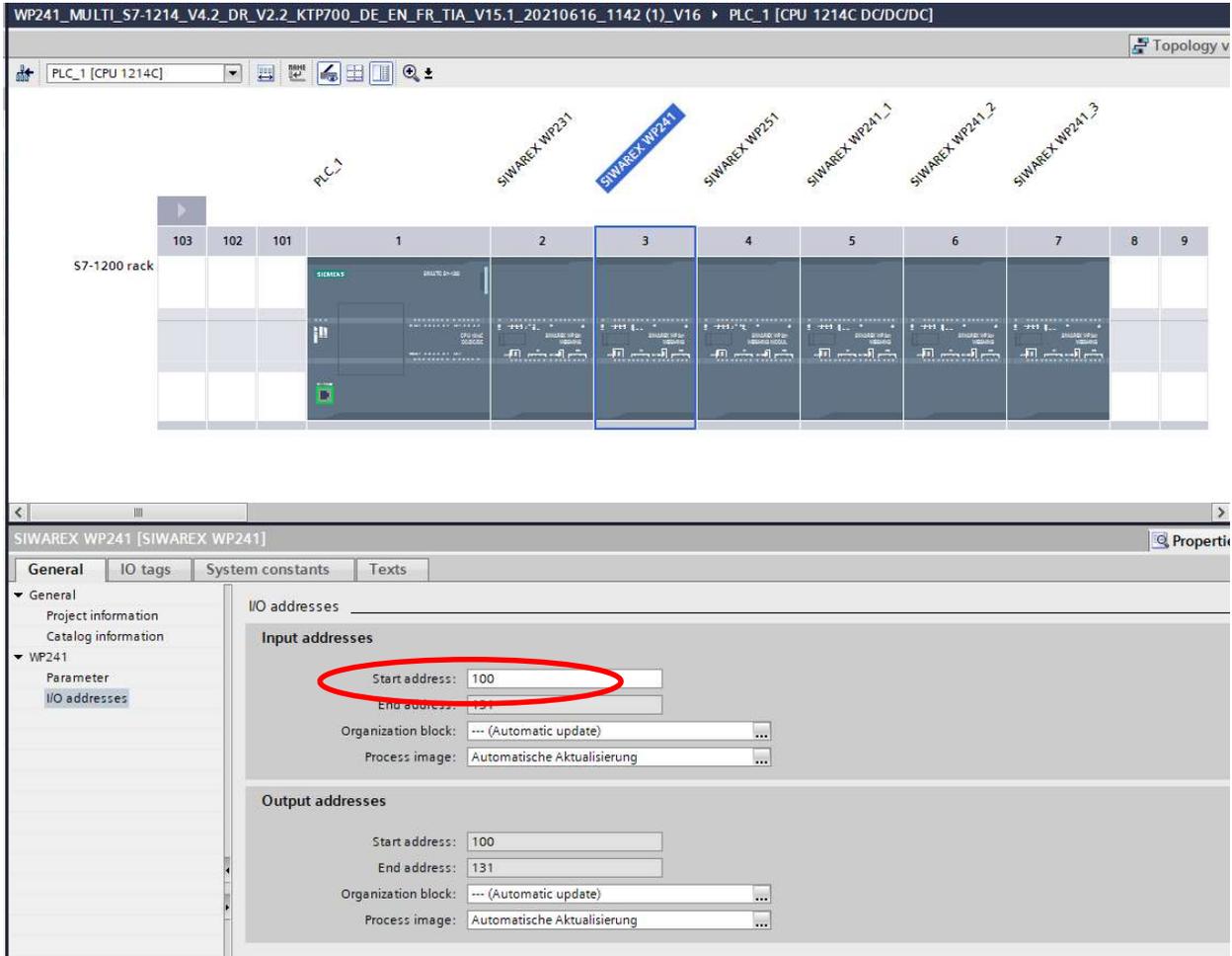
For tag multiplexing a comfort panel is used (KTP basic panel do not support the functions that is used)

The firmware of the WP241 module must be version 1.2.2 or higher.

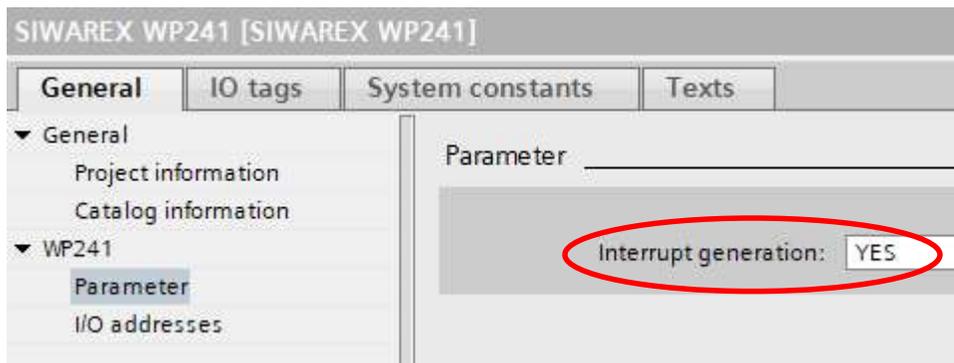
Link to FW: <https://support.industry.siemens.com/cs/document/106369392/firmware-siwarex-wp241?dti=0&pnid=17798&lc=en-WW>

Follow this procedure to handle the project:

1. Ensure that the Siwarex modules have Firmware Version 1.2.2 or higher
2. Add the Siwarex WP241 in the HW configuration and note the start address of each WP241 module.



3. Set in the properties of the HW configuration the parameter “Interrupt generation” for each Siwarex WP241.



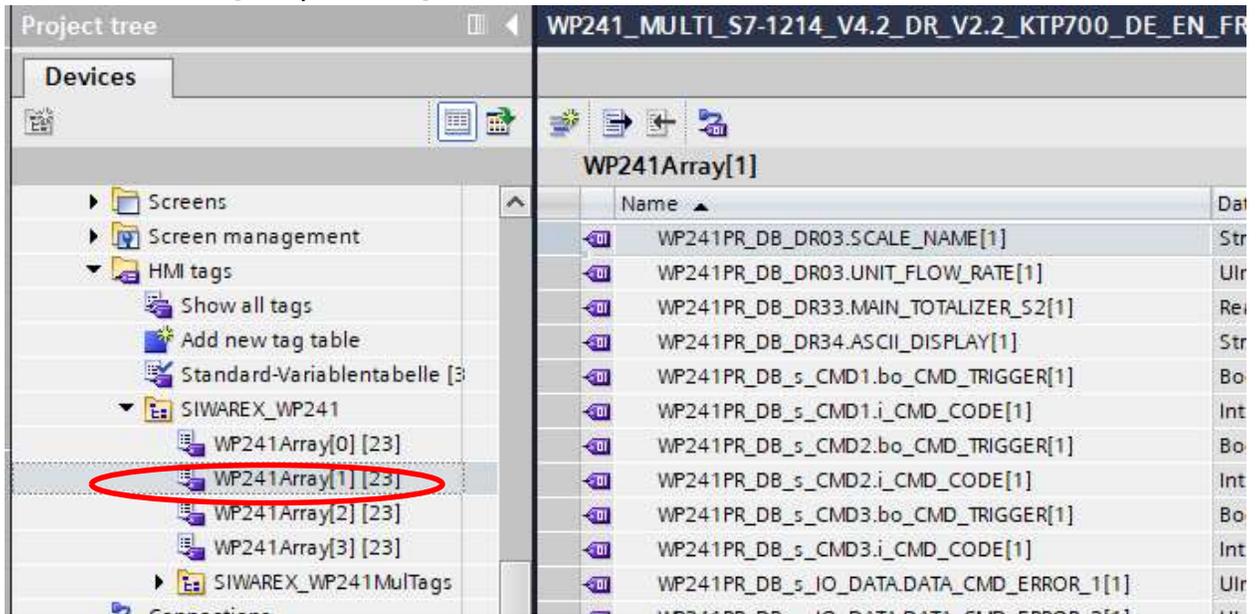
- Open the FB "WP241_Multi_call" and expand the array length of "ArrayLenghtMax". Set the array length according to the number of Siwarex WP241 in your HW configuration. Pay attention the value is calculated as a zero offset (if there is one WP241 the value is 0..0, if there is 5 WP241 the value is 0..4) - Recompile the FB "WP241_mul_call".

WP241_mul_Call			
	Name	Data type	Default value
1	Input		
2	SynchronizeAllDataFr...	Bool	false
3	Output		
4	ArrayStartValue	Int	0
5	ArrayMaxValue	Int	0
6	InOut		
7	<Add new>		
8	Static		
9	WP241PR	Array[#ArrayStart....	
10	FBStartUpTemp	Array[#ArrayStart....	
11	Temp		
12	loop_count	Int	
13	Constant		
14	ArrayStart	Int	0
15	ArrayLenghtMax	Int	3

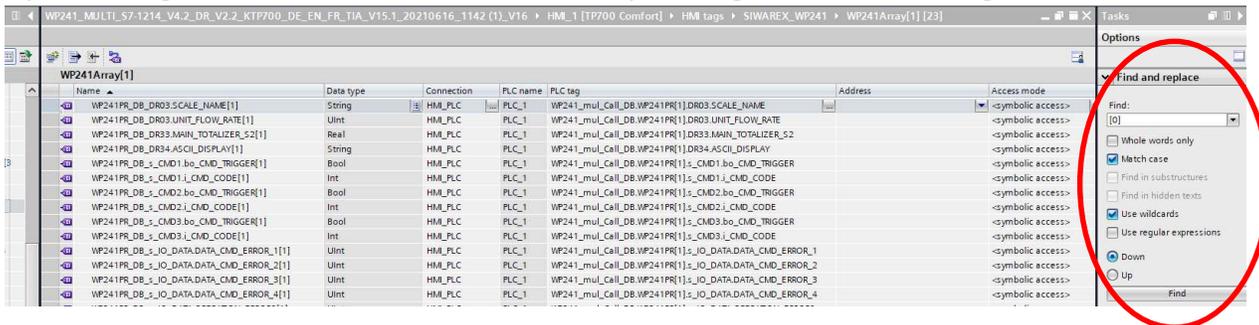
- Open the DB "WP241_mul_Call_DB". Set the number from each module address in the "ADDR" in the array of the WP241PR[x]. Compile then download HW and SW to the PLC.

WP241_mul_Call_DB			
	Name	Data type	Start value
1	Input		
2	SynchronizeAllDataFr...	Bool	false
3	Output		
4	ArrayStartValue	Int	0
5	ArrayMaxValue	Int	0
6	InOut		
7	Static		
8	WP241PR	Array[0..3] of *WP2...	
9	WP241PR[0]	*WP241PR*	
10	Input		
11	ADDR	Dint	100
12	Output		
13	LIFEBIT	Bool	false
14	InOut		
15	Static		
16	WP241PR[1]	*WP241PR*	
17	Input		
18	ADDR	Dint	164
19	Output		
20	LIFEBIT	Bool	false
21	InOut		
22	Static		
23	WP241PR[2]	*WP241PR*	

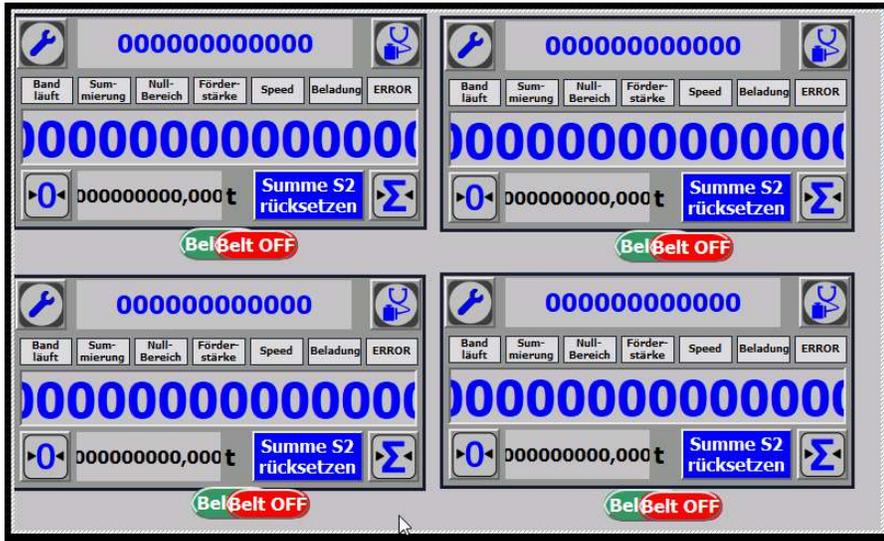
- Copy and paste the HMI tag table “WP241Array[0]”. Rename the new tag table to “WP241Array[1]”, “WP241Array[2]” etc. (in the brackets write the array number for each WP241 E.G. [Array number])



- Open the tag table and use “Task” to find and replace tag names and PLC tags



8. Copy and insert new Faceplates

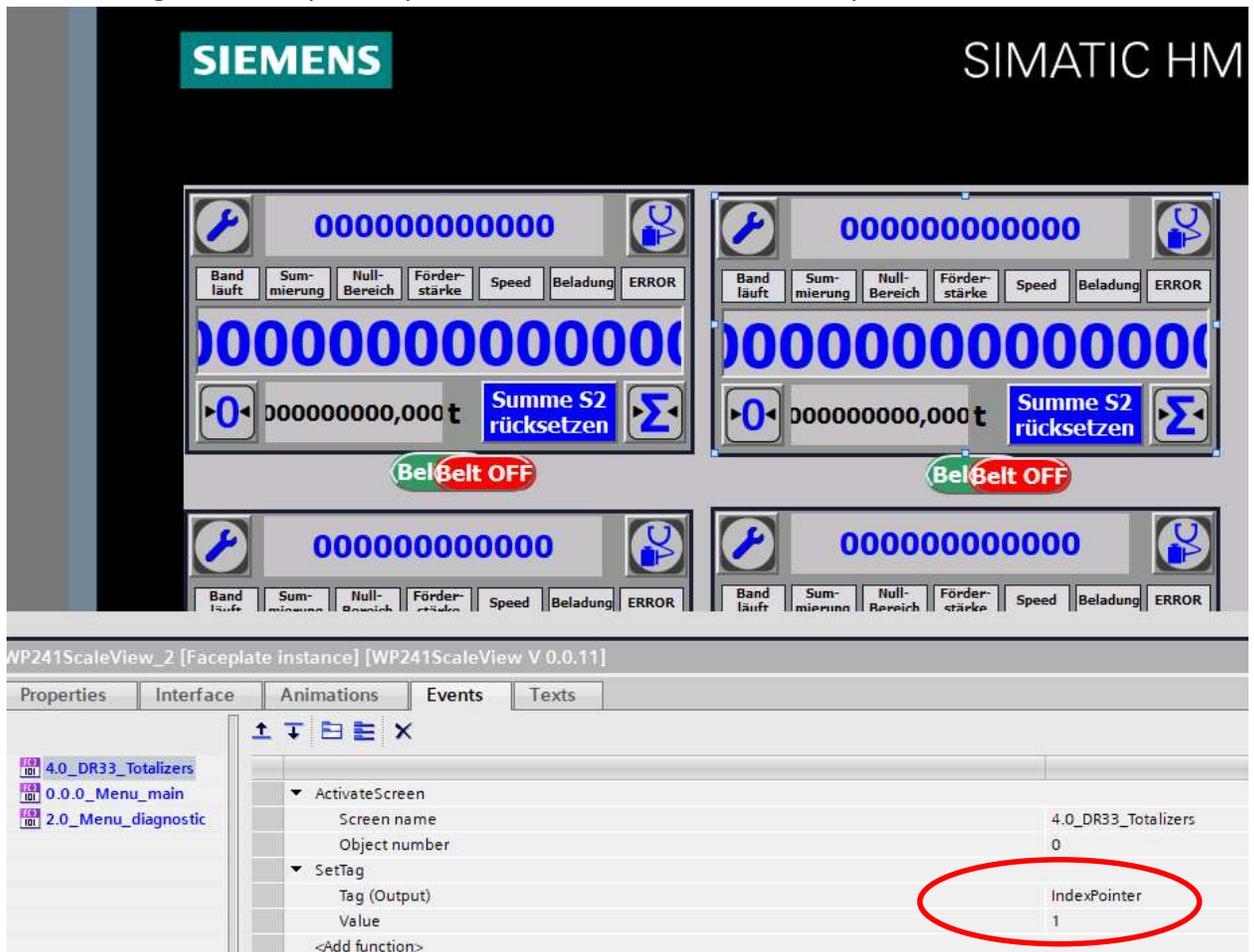


9. Link or re-wire tags in the instance of the faceplate to the new tags

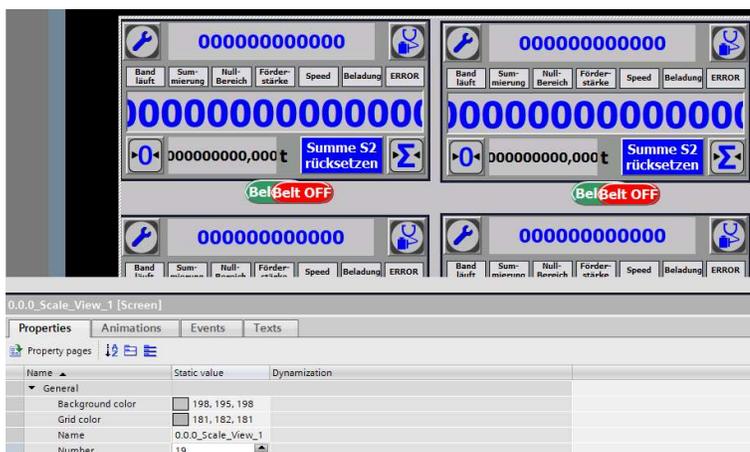
WP241ScaleView_2 [Faceplate instance] [WP241ScaleView V 0.0.11]

Name	Static value	Dynamicization
Properties_Faceplate		
_DR03.SCALE_NAME		"WP241PR_DB_DR03.SCALE_NAME[1]"
_DR03.UNIT_FLOW_RATE		"WP241PR_DB_DR03.UNIT_FLOW_RATE[1]"
_DR33.MAIN_TOTALIZER_S2	0	"WP241PR_DB_DR33.MAIN_TOTALIZER_S2[1]"
_DR34.ASCII_DISPLAY		"WP241PR_DB_DR34.ASCII_DISPLAY[1]"
_s_CMD2.bo_CMD_TRIGGER		"WP241PR_DB_s_CMD2.bo_CMD_TRIGGER[1]"
_s_CMD2.i_CMD_CODE		"WP241PR_DB_s_CMD2.i_CMD_CODE[1]"
_s_IO_DATA.SCALE_STATUS_1.BELT_STATUS		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.BELT_STATUS[1]"
_s_IO_DATA.SCALE_STATUS_1.MAX_LOAD		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.MAX_LOAD[1]"
_s_IO_DATA.SCALE_STATUS_1.MAX_RATE		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.MAX_RATE[1]"
_s_IO_DATA.SCALE_STATUS_1.MAX_SPEED		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.MAX_SPEED[1]"
_s_IO_DATA.SCALE_STATUS_1.TOTALIZERS_ACTIVE		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.TOTALIZERS_ACTIVE[1]"
_s_IO_DATA.SCALE_STATUS_1.ZERO_RANGE		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_1.ZERO_RANGE[1]"
_s_IO_DATA.SCALE_STATUS_2.ERROR		"WP241PR_DB_s_IO_DATA.SCALE_STATUS_2.ERROR[1]"

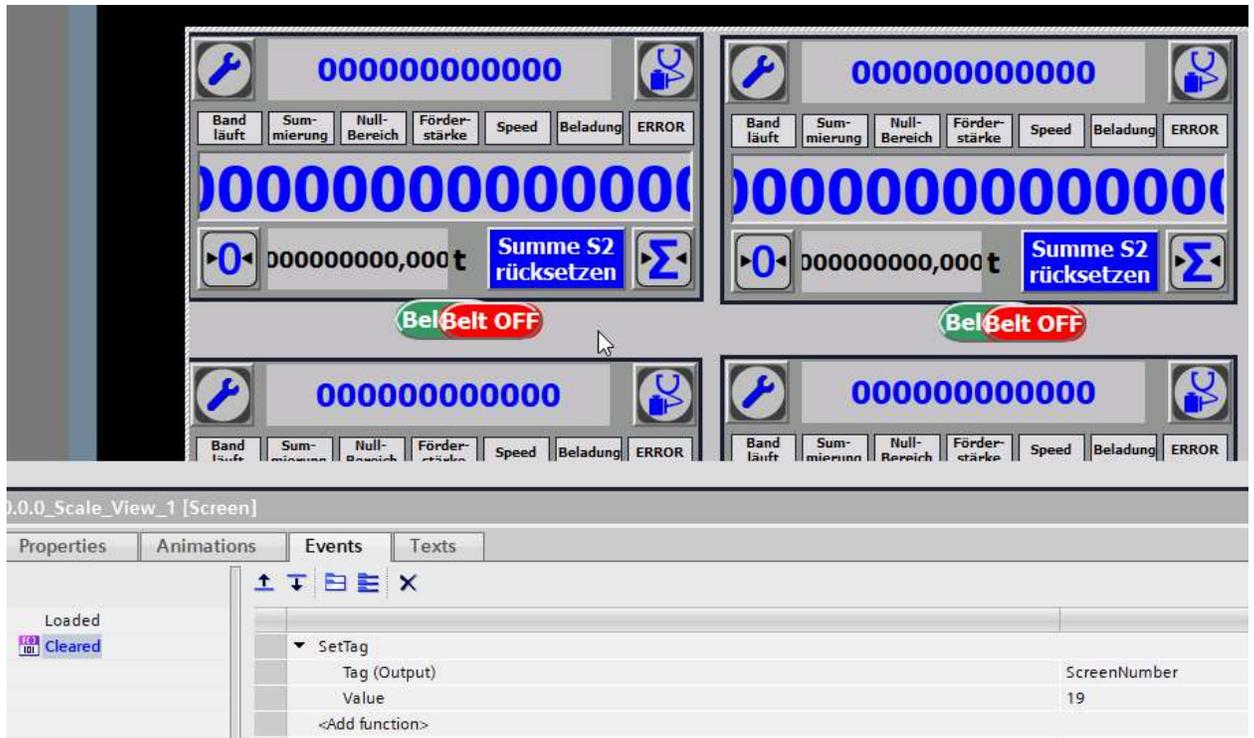
10. Set or changes the array index pointer for all 3 events on the faceplate



11. If it is needed add more screens for faceplates. Pay attention that when the screen is loaded the screen number is set (for screen navigation control)
Remember to set the screen number when the screen is loaded



Find screen number of a screen



Set screen number on event "Cleared"

12. For a correct error reporting, don't forget to give a name to each scale during parameterization.

13. Download to the HMI

Contact

If you have any issues or suggestions regarding the related products or documents, please feel free to contact:

Technical support for SIWAREX:

Siemens AG

Process Industries and Drives
Process Automation
Process Instrumentation
Oestliche Rheinbrueckenstr. 50
76187 Karlsruhe, Germany

Tel: +49 721 667 1200 (8am – 5pm German time)

E-Mail: hotline.siwarex@siemens.com

Website: www.siemens.com/weighing

Support-Request: <http://www.siemens.de/automation/support-request>

Copyright Statement

All rights reserved by Siemens AG

This document is subject to change without notice. Under no circumstances shall the content of this document be construed as an express or implied promise, guarantee (for any method, product or equipment) or implication by or from Siemens AG. Partial or full replication or translation of this document without written permission from Siemens AG is illegal.