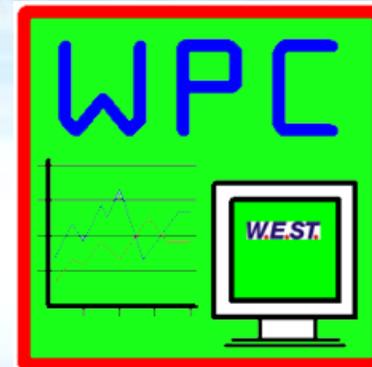


# Hydraulics meet Electronics

W.E.St. Elektronik GmbH

Communication tool for our open and closed loop control modules



WPC-300-V4



## Survey

- Page 3: General information about this tool
- Page 4: Getting connected
- Page 6: User buttons
- Page 8: Overview with monitor
- Page 9: Overview with oscilloscope
- Page 10: Parameter table and input
- Page 12: Using the oscilloscope
- Page 15: Remote control
- Page 16: Loading and storing of a parameter set
- Page 19: Using offline data
- Page 20: Firmware – Update
- Page 21: Extra (Add-ons)



## Communication and start-up tool for serial interface

- Reading out process data and parameters as well as parameterizing
- Compatible with all W.E.St. Device series with serial interface
- Optimized for Windows 10 / executable also on Windows 7

## Optimized for our W.E.St. devices

- Parameterizing in tabular form
- Displaying process data (monitor or oscilloscope) simultaneously to parameter table
- Showing error and status message
- Remote control mode for start-up and trouble-shooting
- Saving and loading of complete data sets, online and offline
- Simple possibility for updating the device firmware, if necessary
- Extras for script programming and data recording

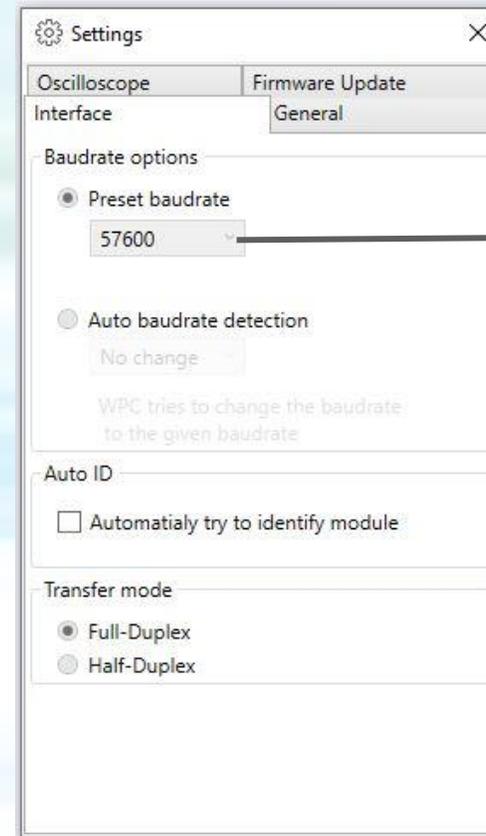


# WPC-300-V4: Connection settings

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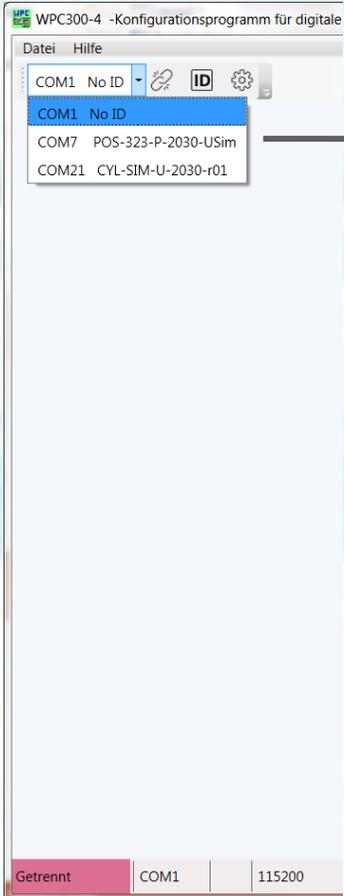
Before first connection the relating settings have to be checked. They are located among the common settings menu below the marked button.



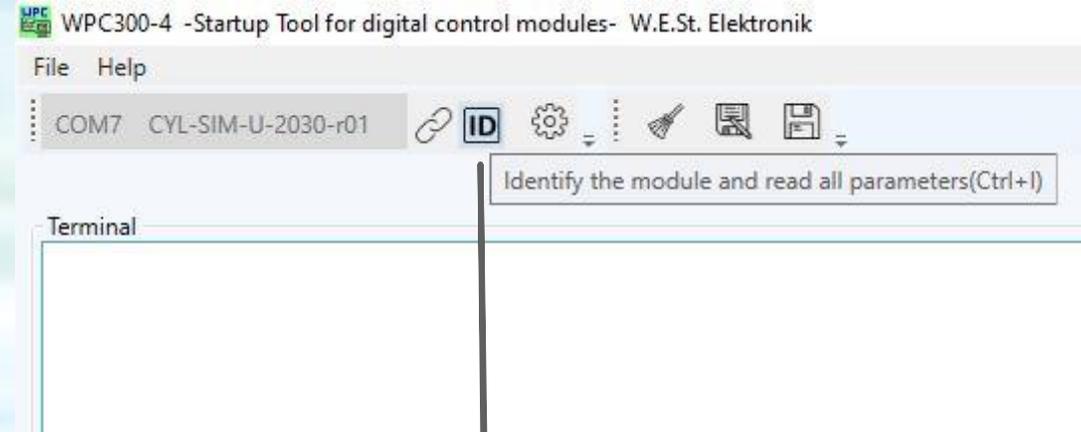
Top hat rail mounted devices work in full duplex, mobile ones in half duplex mode. The default value for the baudrate is 9600 at older devices with stereo jack connection. At newer ones 57600 is preset. If using both types the auto detection is useful in order to avoid often switching. Furthermore some older device can be speeded up to the higher baudrate.



# WPC-300-V4: Establish connection



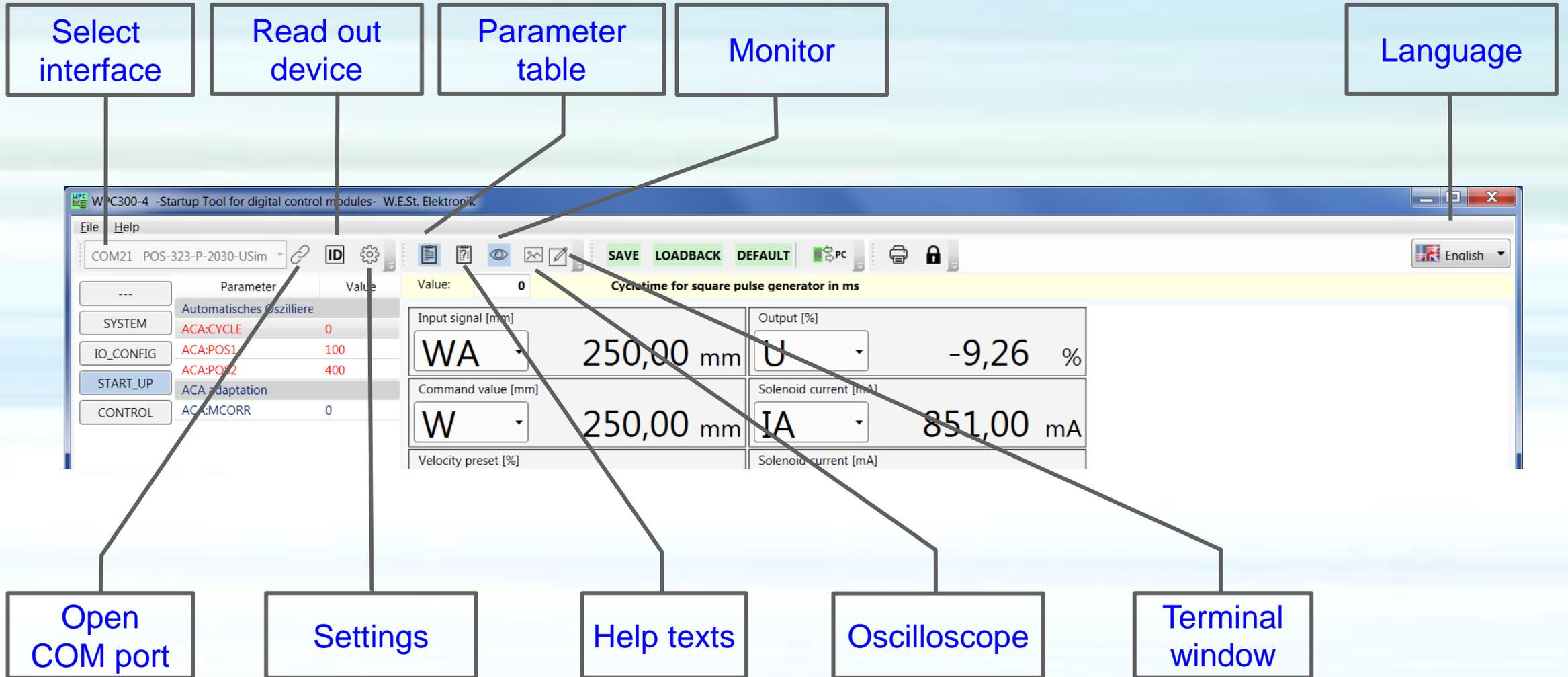
Select an interface out of the list of available COM ports to get linked to. If AUTO ID is active, connected W.E.St. devices are detected automatically and will be displayed at the relating port, if function is provided by the modules. Otherwise the port can be identified by detecting the omitted one after removing the connection.



Establish a connection by pressing first the **connect** button followed by the **ID** button for reading the device data. If terminal is deactivated, only **ID** button is needed.

# WPC-300-V4: User buttons

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meets Hydraulics  
Electronics



# WPC-300-V4: User buttons

Electronics  
Hydraulics meets  
meets Hydraulics  
Electronics

Store data in  
the device

Load back the  
stored data

Reload factory  
settings

The screenshot shows the 'WPC300-4 -Startup Tool for digital control modules- W.E.St. Elektronik' interface. It features a menu bar with 'File' and 'Help', a toolbar with icons for ID, settings, and PC connection, and a language dropdown set to 'English'. A parameter table on the left lists settings like 'Automatisches Oszilliere' (0), 'ACA:CYCLE' (0), 'ACA:POS1' (100), 'ACA:POS2' (400), 'ACA adaptation', and 'ACA:MCORR' (0). The main display area shows 'Cycletime for square pulse generator in ms' with a value of 0. Below this are four parameter rows: 'Input signal [mm]' (WA, 250,00 mm, Output [%] -9,26 %), 'Command value [mm]' (W, 250,00 mm, Solenoid current [mA] 851,00 mA), and two rows for 'Velocity preset [%]' and 'Solenoid current [mA]'. A toolbar at the top of the main area contains 'SAVE', 'LOADBACK', 'DEFAULT', and a lock icon.

Load/save  
parameter set file

Print  
parameter set

Enter  
password



# WPC-300-V4: Overview with monitor

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Electronics

Standard menu with  
basic functions and  
extended settings

The screenshot displays the WPC300-4 configuration software interface. The main window is titled 'WPC300-4 - Konfigurationsprogramm für digitale Regler- W.E.St. Elektronik'. It features a menu bar with 'Datei' and 'Hilfe', and a toolbar with buttons for 'SAVE', 'LOADBACK', 'DEFAULT', and 'PC'. The interface is divided into several sections:

- Parameter List:** A table on the left lists parameters and their values. The 'CONTROL' tab is selected.
- Control Parameters:** A central area with several input fields and dropdown menus for setting parameters like 'Eingangssignal [mm]', 'Reglerausgang [%]', 'Sollwert [mm]', 'Stellsignal [0,01%]', 'Geschwindigkeitsvorgabe [0,01%]', 'Magnetstrom [mA]', 'Istwert [mm]', and 'Regelfehler [mm]'. A green arrow points from the 'IB' dropdown menu to the right-hand callout box.
- Status Information:** A section at the bottom left shows status indicators for 'READY', 'EEPROM', 'SYS\_ERROR', 'INPUT PIN 9/10', 'INPUT PIN 13', 'INPUT PIN 14', 'SOLENOID A', 'SOLENOID B', and 'INPOS'. A green arrow points from this section to the bottom callout box.
- Remote Control:** A section at the bottom right titled 'Fernsteuerung zur Bedienung des Moduls über WPC' includes a 'Fernsteuerung einschalten' button and checkboxes for 'Steuerung' (ENABLE, START, HAND:B, HAND:A) and 'Assistent' (SENSOR, VALVE, CONTROL, RUN). Below this are two analog input displays labeled 'V' and 'WA'.

At the bottom of the window, a status bar shows 'Connected', 'COM7', 'FDX', '115200', and 'POS-323-P-2030-USim'.

Monitor for  
process data  
display. Signal  
selection via  
drop-down menu.

Information  
about connection  
and device

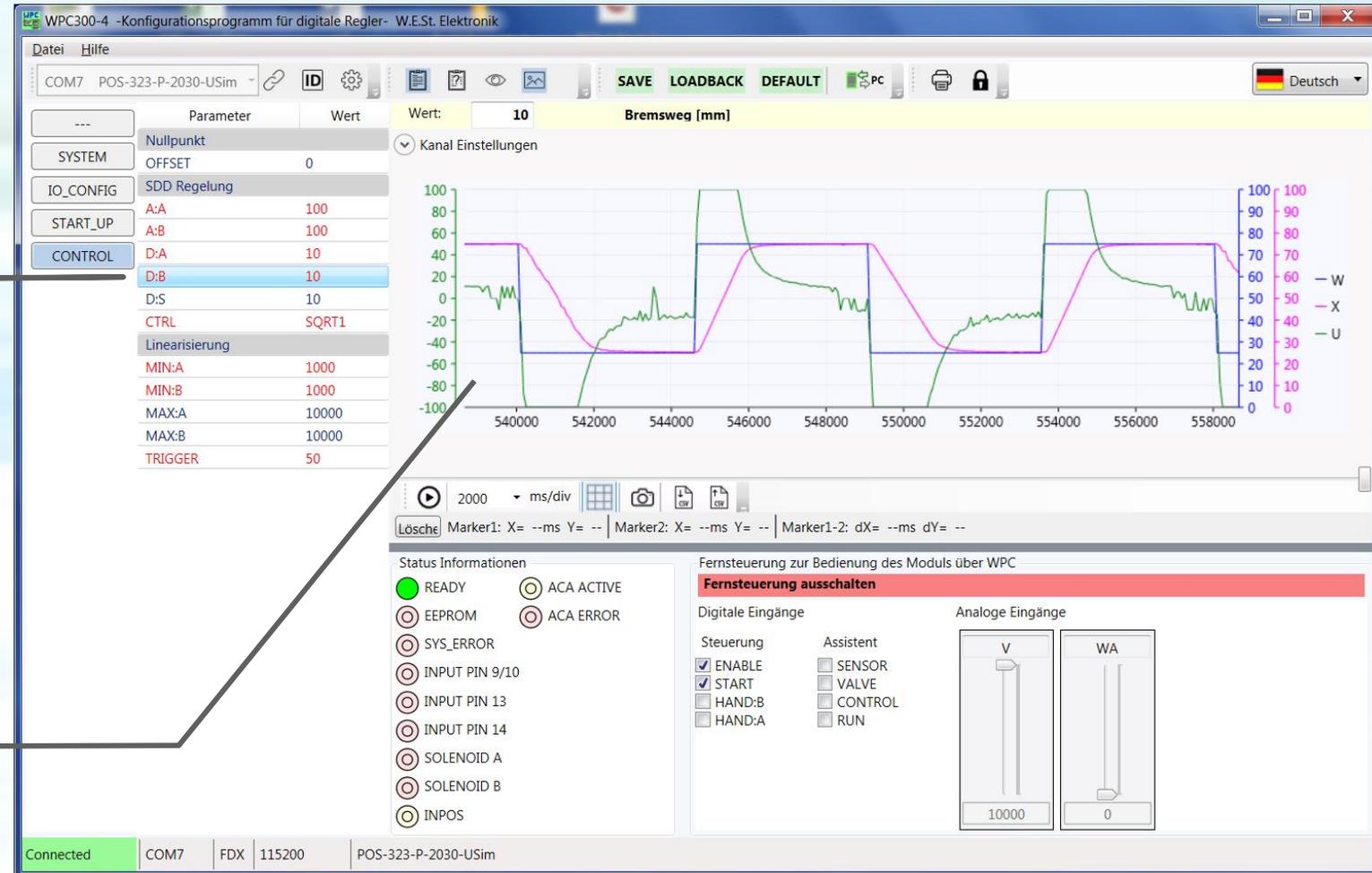
Status notes and  
handling of the  
remote control



# WPC-300-V4: Overview with oscilloscope

Changing parameters is now possible without switching the view. Red marked parameters have not been saved yet.

Oscilloscope next to the parameter table.



# WPC-300-V4: Parameter table

Select group of parameters to be displayed.

Depending on the selected group the relating parameters will be displayed on the table.

The screenshot shows the 'WPC300-4 - Konfigurationsprogramm für digitale Regler- W.E.St. Elektronik' software. The interface includes a menu bar, a toolbar with 'SAVE', 'LOADBACK', and 'DEFAULT' buttons, and a language dropdown set to 'Deutsch'. On the left, a tree view shows parameter groups: SYSTEM, IO\_CONFIG, START\_UP, CONTROL (selected), and Linearisierung. The main area displays a table of parameters for the 'CONTROL' group.

Parameter	Wert
Nullpunkt	0
Offset	0
SDD Regelung	
A:A	100
A:B	100
D:A	10
D:B	10
D:S	10
CTRL	SQRT1
Linearisierung	
MIN:A	1000
MIN:B	1000
MAX:A	10000
MAX:B	10000
TRIGGER	50

Parameter	Wert
Eingangssignal [mm]	WA 25,00 mm
Reglerausgang [%]	C -100,00 %
Sollwert [mm]	W 25,00 mm
Stellsignal [0,01%]	U -100,00 %
Geschwindigkeitsvorgabe [0,01%]	V 100,00 %
Magnetstrom [mA]	IA 851,00 mA
Istwert [mm]	X 43,47 mm
Magnetstrom [mA]	IB 867,00 mA
Regelfehler [mm]	E -18,42 mm

Status Informationen:

- READY
- EEPROM
- SYS\_ERROR
- INPUT PIN 9/10
- INPUT PIN 13
- INPUT PIN 14
- SOLENOID A
- SOLENOID B
- INPOS
- ACA ACTIVE
- ACA ERROR

Fernsteuerung zur Bedienung des Moduls über WPC

**Fernsteuerung ausschalten**

Digitale Eingänge:

- Steuerung:  ENABLE,  START,  HAND:B,  HAND:A
- Assistent:  SENSOR,  VALVE,  CONTROL,  RUN

Analoge Eingänge:

- V: 10000
- WA: 0

Bottom status bar: Verbunden | COM7 | FDX | 115200 | POS-323-P-2030-USim



# WPC-300-V4: Parameter input

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Hydraulics meets  
meets Hydraulics  
Electronics

Parameter name

The screenshot shows the 'WPC300-4 - Konfigurationsprogramm für digitale Regler- W.E.St. Elektronik' interface. It features a menu bar with 'Datei' and 'Hilfe', a toolbar with icons for ID, settings, and other functions, and a main window with a parameter list. The list has columns for 'Parameter', 'Wert', and 'Erklärung'. A dialog box titled 'Edit MAX:B' is open, showing a 'New value' input field with '5000', 'Max value' of '10000', and 'Min value' of '3000'. There is also a 'Comment' field with the text 'Valve flow scaling [0.01 %]' and 'OK' and 'Cancel' buttons.

Parameter	Wert	Erklärung
MODE	CONTROL	SYSTEM IO_CONFIG START_UP CONTROL
VELO	10000	Internal command speed [0,01%]
OFFSET	20	System offset [µm]
A:A	63	Acceleration time A [ms]
A:B	63	Acceleration time B [ms]
D:A	10	Deceleration stroke [mm]
D:B	10	Deceleration stroke [mm]
D:S	10	Emergency stop stroke (PIN 7 = OFF) [mm]
CTRL	SQRT1	Control characteristic
MIN:A	1372	MIN adjustment / deadband compensation A [0,01%]
MIN:B	1373	MIN adjustment / deadband compensation B [0,01%]
MAX:A	10000	Output scaling A [0,01%]
MAX:B	10000	Output scaling B [0,01%]
TRIGGER	50	Trigger point of the MIN adjustment [0,01%]

Help text:  
in German  
and English,  
Switchable.  
Can be blendet  
or hidden.

Parameter value

Value input  
after parameter  
selection



# WPC-300-V4: Oszilloscope graphic settings

Electronics  
Hydraulics meets  
meets Hydraulics  
Electronics

The screenshot shows the WPC300-4 software interface. On the left, there is a parameter list with categories like SYSTEM, IO\_CONFIG, START\_UP, and CONTROL. The main area features an oscilloscope display with a grid and a red vertical axis. Below the display are status information and remote control sections. A callout box points to the grid settings.

Basic settings  
for displaying

Blend or hide  
the grit

The Settings dialog box is open, showing the 'Interface' tab. It includes sections for 'Oscilloscope' (Background color, Grid color, Channel colors, Cursor colors) and 'Firmware Update' (Line width). A callout box points to the 'Grid color' setting.



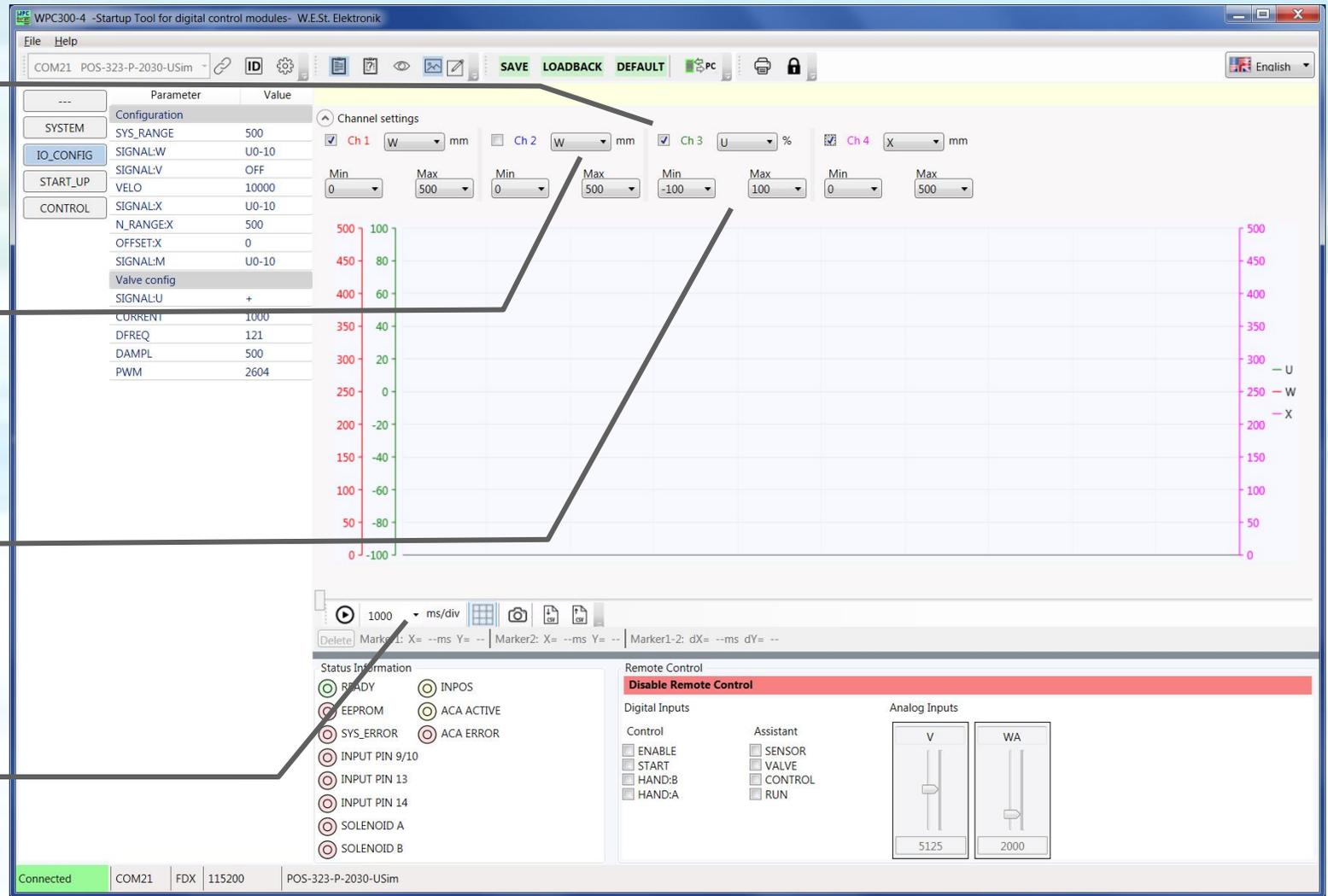
# WPC-300-V4: Oscilloscope channel settings

Activation of the wanted channel

Selection of the process data

Scaling of the signal

Scaling of the time line



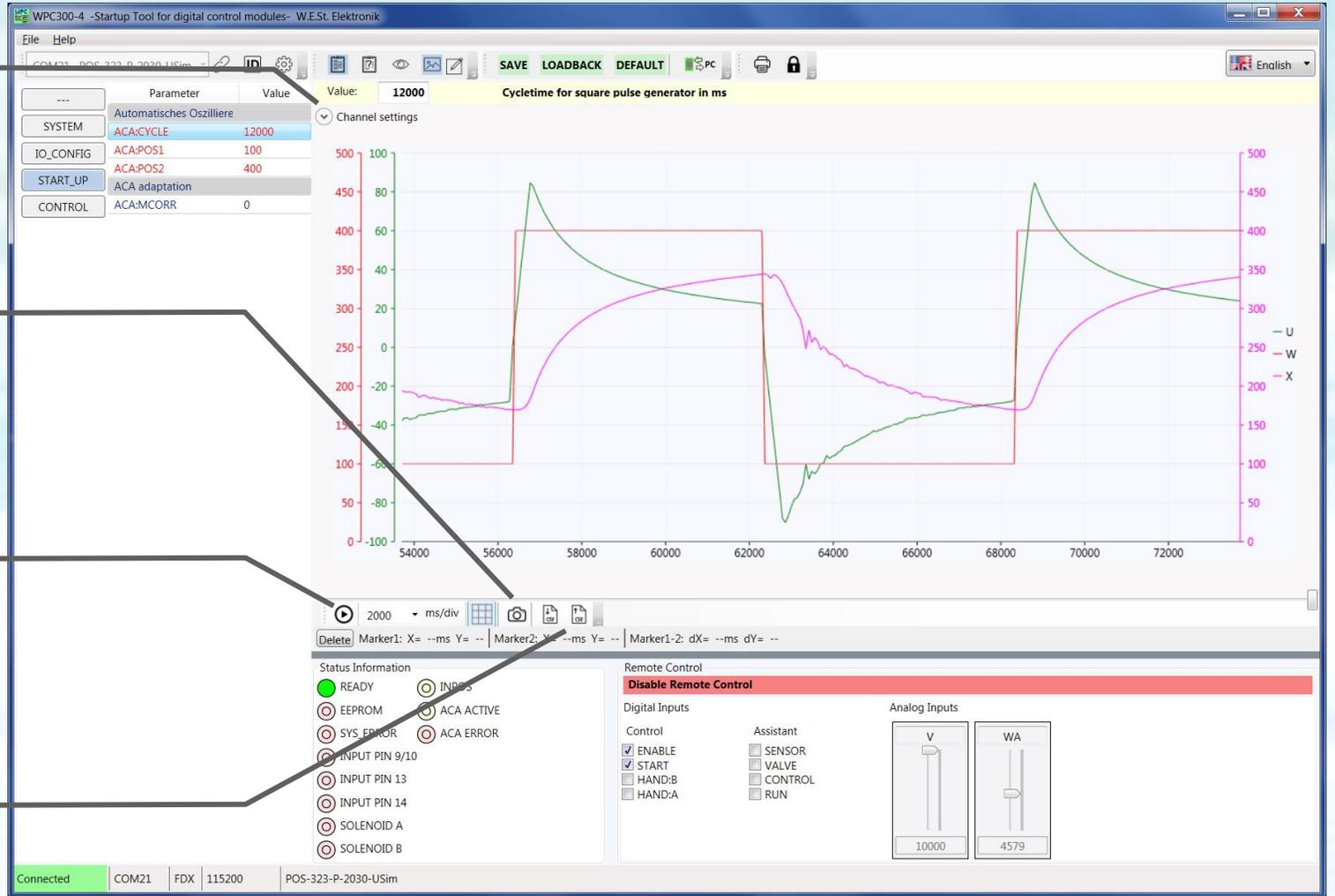
# WPC-300-V4: Oscilloscope using

Blend or hide  
channel settings

Create a  
screen shot

Start/stop  
recording

Load/save  
recording



# WPC-300-V4: Remote control

Electronics  
Hydraulics meets  
meets Hydraulics  
Electronics

The screenshot displays the 'WPC300-4 -Startup Tool for digital control modules- W.E.St. Elektronik' interface. The main window is titled 'Cycletime for square pulse generator in ms' and contains several control panels. On the left, a 'Parameter' table lists system, IO, and control parameters. The central area shows various input and output values for different channels (WA, W, V, X, E, C). Below this, a 'Status Information' section lists system health indicators. The 'Remote Control' section at the bottom right includes a 'Disable Remote Control' button and digital/analog input controls.

Parameter	Value
SYSTEM	ACA:CYCLE 0
IO_CONFIG	ACA:POS1 100 ACA:POS2 400
START_UP	ACA adaptation
CONTROL	ACA:MCORR 0

Input signal [mm]	Output [%]
WA 250,00 mm	U -9,26 %
Command value [mm]	Solenoid current [mA]
W 250,00 mm	IA 851,00 mA
Velocity preset [%]	Solenoid current [mA]
V 72,95 %	IB 866,00 mA
Feedback value [mm]	
X 277,47 mm	
Control error [mm]	
E -26,00 mm	
Controller output [%]	
C -9,78 %	

Status Information:

- READY
- EEPROM
- SYS\_ERROR
- INPUT PIN 9/10
- INPUT PIN 13
- INPUT PIN 14
- SOLENOID A
- SOLENOID B
- INPOS
- ACA ACTIVE
- ACA ERROR

Remote Control:

Disable Remote Control

Digital Inputs:

- Control: ENABLE, START, HAND:B, HAND:A
- Assistant: SENSOR, VALVE, CONTROL, RUN

Analog Inputs:

- V: 7295
- WA: 5000

Digital and analog inputs are simulated. Control signals and command values are rreset with it.

Activation Of Remote control. The user takes control over the device.



# WPC-300-V4: Load and save data



Save parameter set  
into file

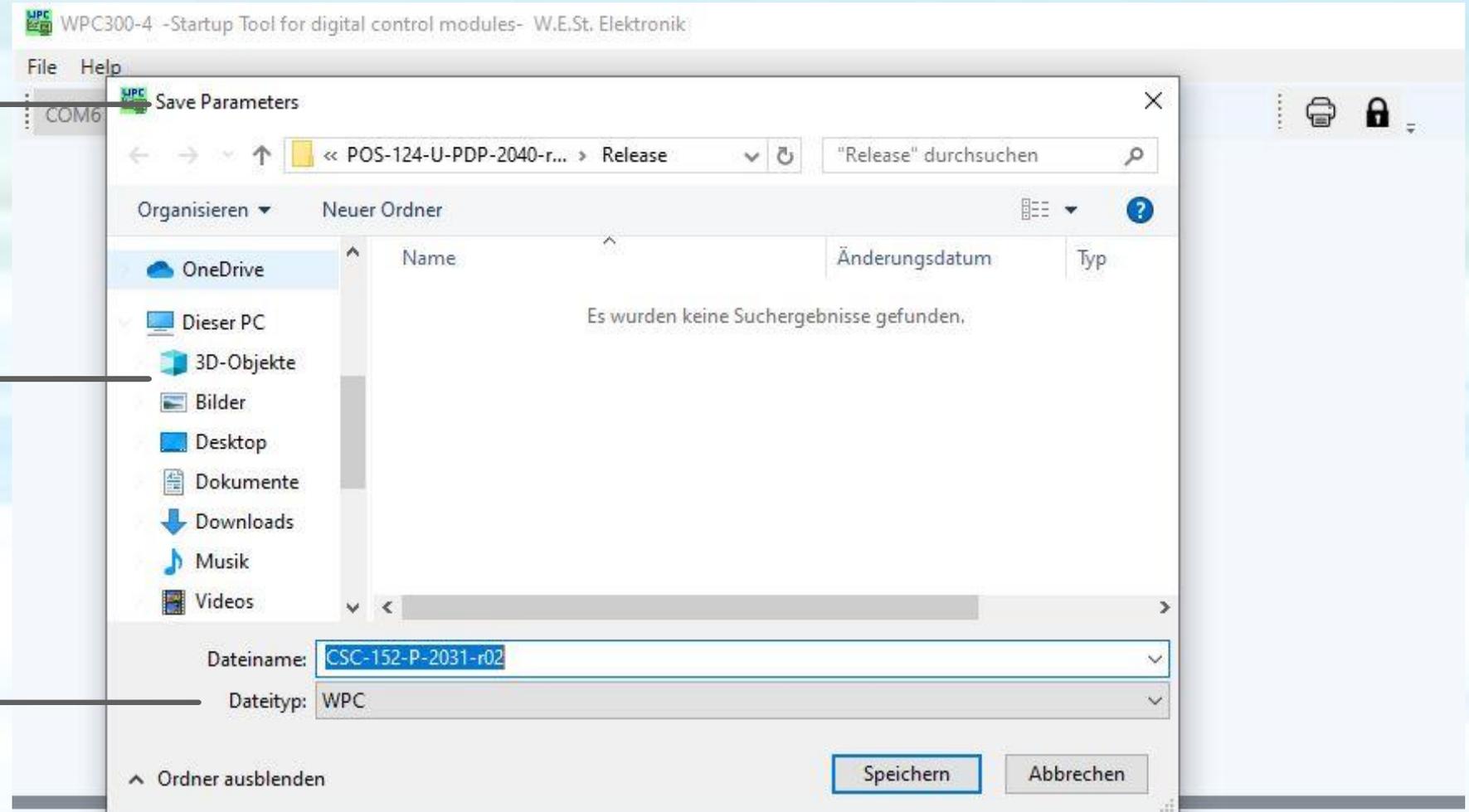
Load parameter set  
from file

# WPC-300-V4: Save parameter sets

Windows explorer window

Select storage location

Enter file name

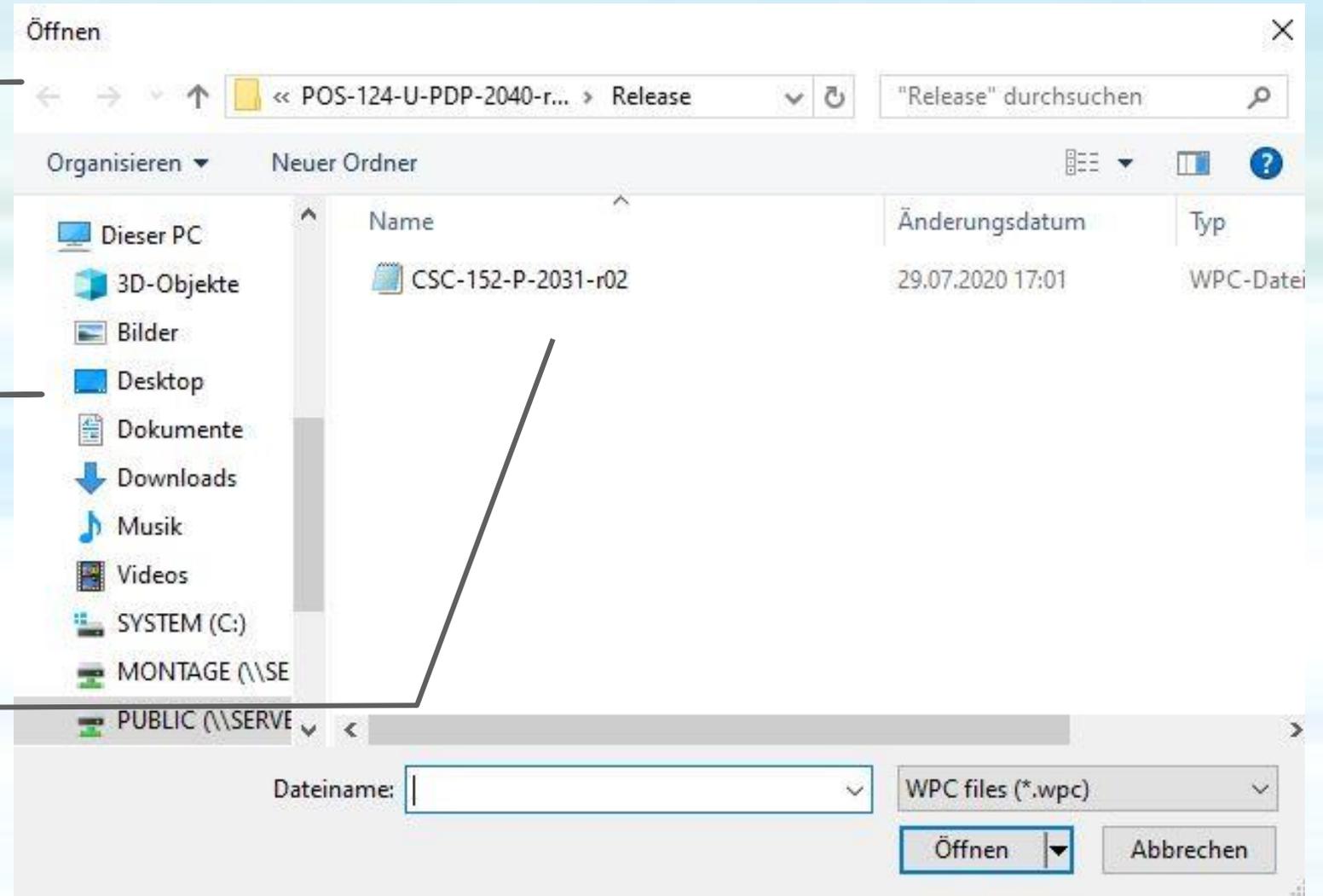


# WPC-300-V4: Load parameter set

Windows explorer window

Browse for storage location

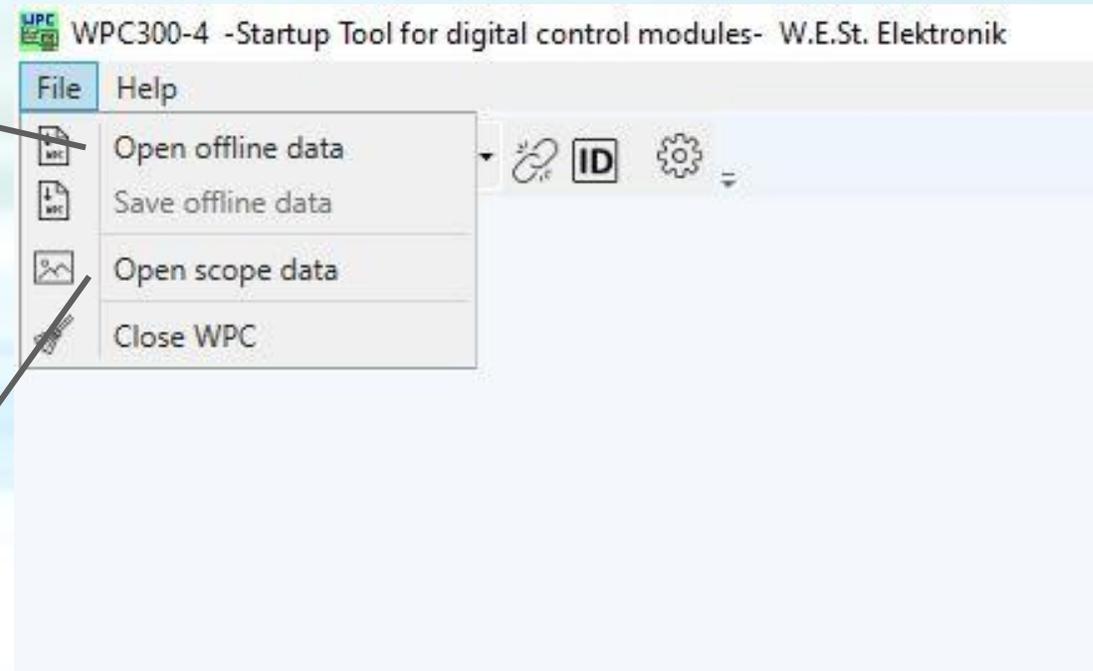
Pick deposited WPC file



# WPC-300-V4: Offline data

Windows explorer window

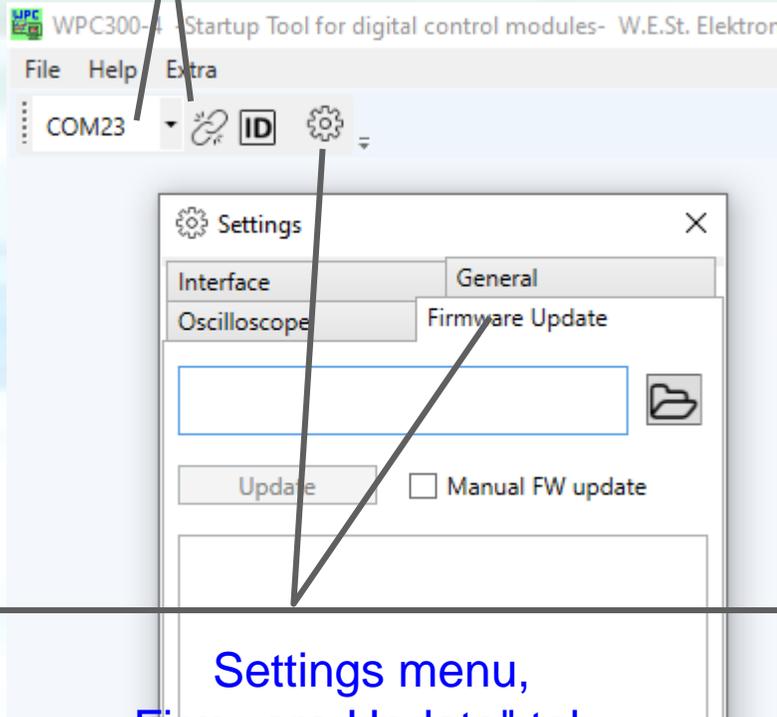
Show/play  
Oszilloscope recording



# WPC-300-V4: Firmware - Update

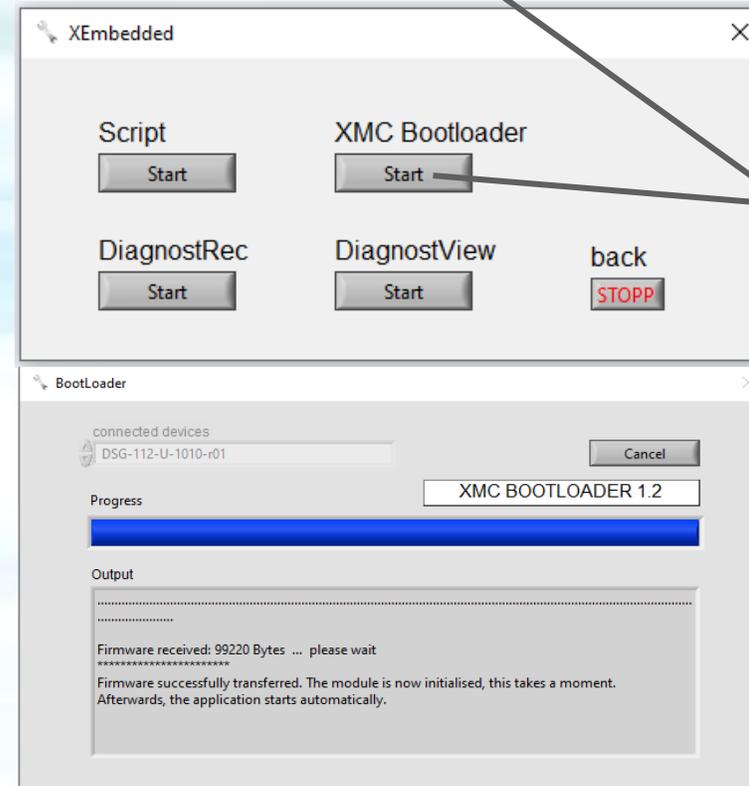
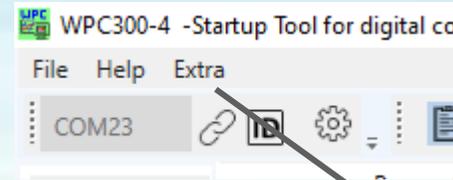
Variant 1: Update with \*.s19 file

Select COM port  
Device must be disconnected!



Settings menu,  
"Firmware Update" tab,  
Select file, push button "Update"

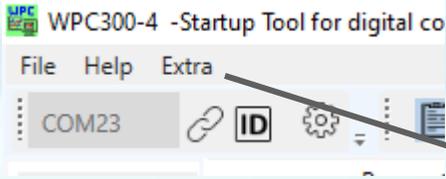
Variant 2: Update with \*.s20 file



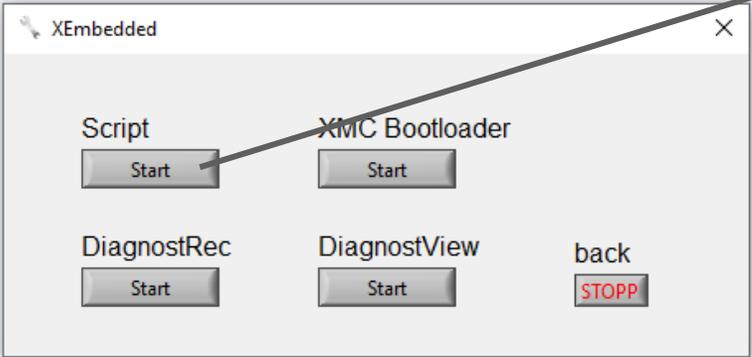
Menu Extras  
Start XMC Bootloader  
Select file  
Wait  
Window closes after  
completion of the update  
automatically



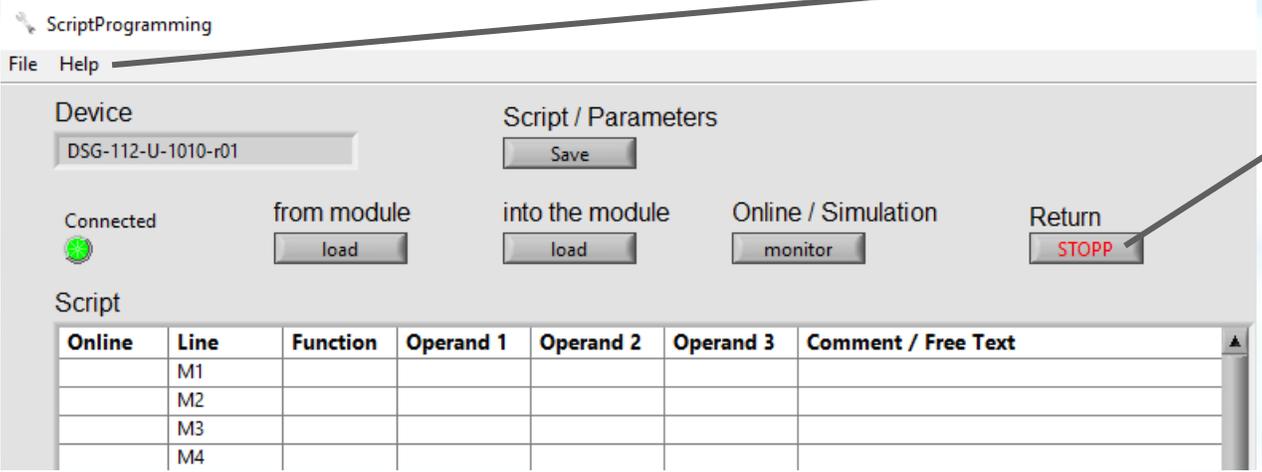
# WPC-300-V4: Script Programming



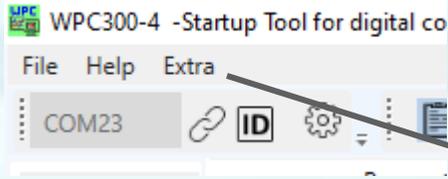
Module is connected  
Extra menu  
Start script software  
(only possible if the  
module supports this)



Script application starts  
Script on the device is loaded  
into the table  
After completion change back to  
the WPC main window  
For further information see  
Online - Help



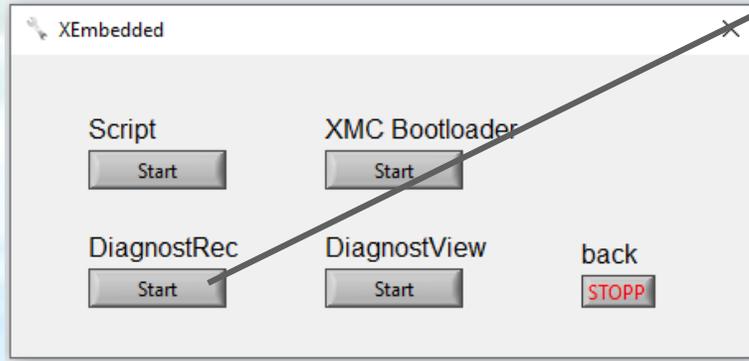
# WPC-300-V4: Fast Recording



Module is connected

Extra menu

Start DiagnostRec software  
(only possible if the  
module supports this)



Recording software starts

Create file to save  
the data (dialogue)

Rotating pointer symbolizes  
progress of recording

To end return via "STOPP"  
to the WPC main window

