



Automotive
Energy & Power Analysis
Aerospace & Defense
Transportation
General Test & Measurement

DEWEConfig

Software reference manual



Re-inventing Data Acquisition



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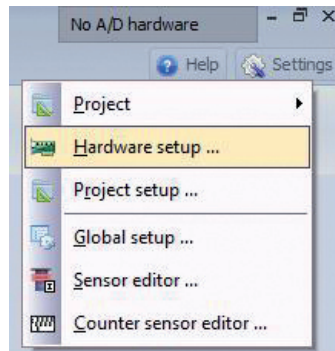
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Enable config mode

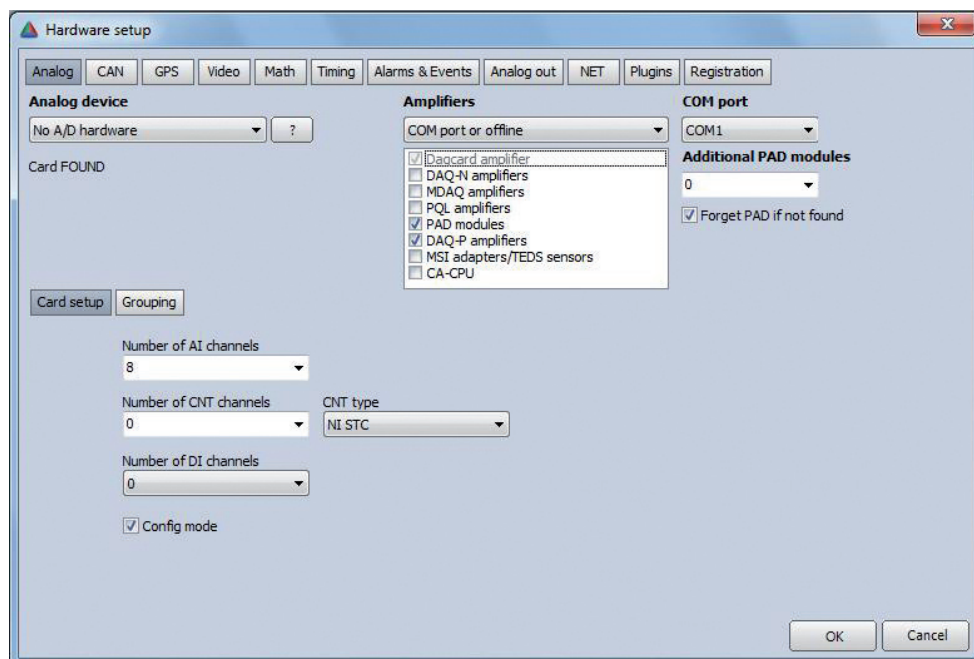
Install DEWESoft on your computer and start DEWESoft usually via *"Start - Programs - DEWESoft"*.
In DEWESoft click on

- **Settings**
- **Hardware setup**



- Analog

Select *"No A/D hardware"* and *"Number of AI channels"* which reflects the number of the modules to be configured and check *"Config mode"*. Select *"COM port"* and check *"DAQ-P amplifiers"* and *"PAD modules"*.



Confirm with *"OK"*.

DEWEConfig

Setup screen



DEWESoft - Setup: A_DEMO.d7s

Setup files

Ch. setup



Save



Save as



Analog

Set amplifiers

☐ Keep amplifier buttons locked after closing Dewesoft

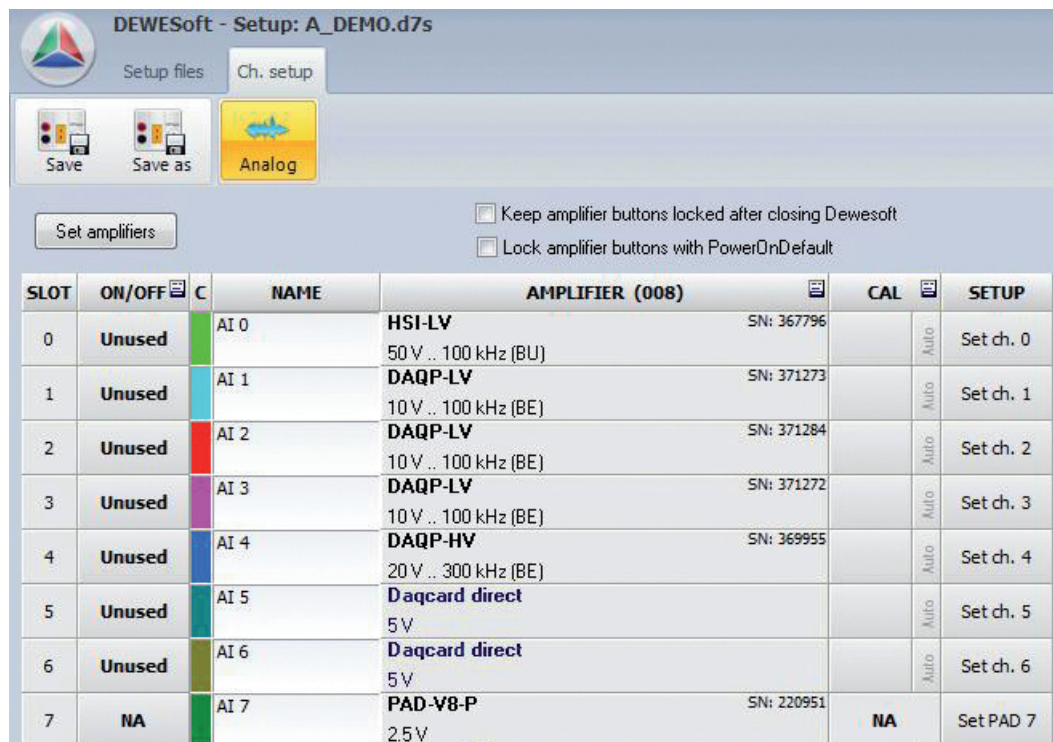
☐ Lock amplifier buttons with PowerOnDefault

SLOT	ON/OFF	C	NAME	AMPLIFIER (008)	CAL	SETUP
0	Unused	AI 0	HSI-LV	SN: 367796	Auto	Set ch. 0
			50 V .. 100 kHz (BU)			
1	Unused	AI 1	DAQP-LV	SN: 371273	Auto	Set ch. 1
			10 V .. 100 kHz (BE)			
2	Unused	AI 2	DAQP-LV	SN: 371284	Auto	Set ch. 2
			10 V .. 100 kHz (BE)			
3	Unused	AI 3	DAQP-LV	SN: 371272	Auto	Set ch. 3
			10 V .. 100 kHz (BE)			
4	Unused	AI 4	DAQP-HV	SN: 369955	Auto	Set ch. 4
			20 V .. 300 kHz (BE)			
5	Unused	AI 5	Daqcard direct		Auto	Set ch. 5
			5 V			
6	Unused	AI 6	Daqcard direct		Auto	Set ch. 6
			5 V			
7	NA	AI 7	PAD-V8-P	SN: 220951	NA	Set PAD 7
			2.5 V			
8	Unused	AI 8	Daqcard direct		Auto	Set ch. 8
			5 V			
9	Unused	AI 9	Daqcard direct		Auto	Set ch. 9
			5 V			
10	Unused	AI 10	Daqcard direct		Auto	Set ch. 10
			5 V			
11	Unused	AI 11	Daqcard direct		Auto	Set ch. 11
			5 V			
12	Unused	AI 12	Daqcard direct		Auto	Set ch. 12
			5 V			
13	Unused	AI 13	Daqcard direct		Auto	Set ch. 13
			5 V			
14	Unused	AI 14	Daqcard direct		Auto	Set ch. 14
			5 V			
15	Unused	AI 15	Daqcard direct		Auto	Set ch. 15
			5 V			

Now the above screen will be shown. In this case we have got a signal conditioning rack with 16 channel, slot 0 to 15 will indicate this channels. The picture below is giving an example of an 16 channel signal conditioning rack.



Programming module address



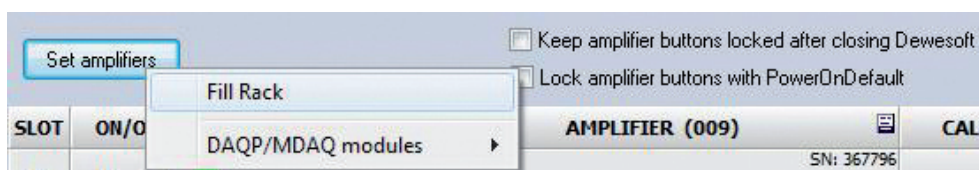
The modules are scanned and detected from the DEWEConfig automatically as long as the addresses of the modules correspond with the slot.

To set the address of the modules a "FILL Rack" has to be performed after every module change:

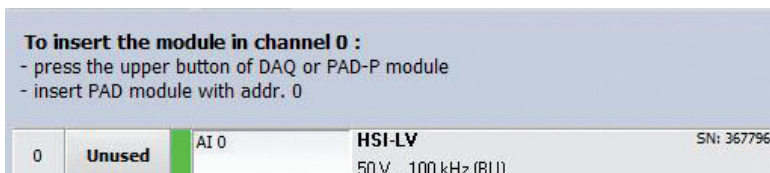
- Klick on



- "Fill Rack"



-



Now the upper button of the DAQP/HSI/PAD amplifier has to be pressed to set the address of the modules according to the slot they are installed.

DEWEConfig

After pressing the upper button of the module, the software will automatically set the next module, indicated that the address counts up (0 .. 15). Proceed till all modules are programmed and terminate with "Cancel". In case of module gaps press "Skip" to change to next slot.

To insert the module in channel 1 :
- press the upper button of DAQ or PAD-P module
- insert PAD module with addr. 0

0	Unused	AI 0	HSI-LV 50 V .. 100 kHz (BU)		Auto	Set ch. 0
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Set amplifiers

DEWESoft - Setup: A_DEMO.d7s

Setup files Ch. setup

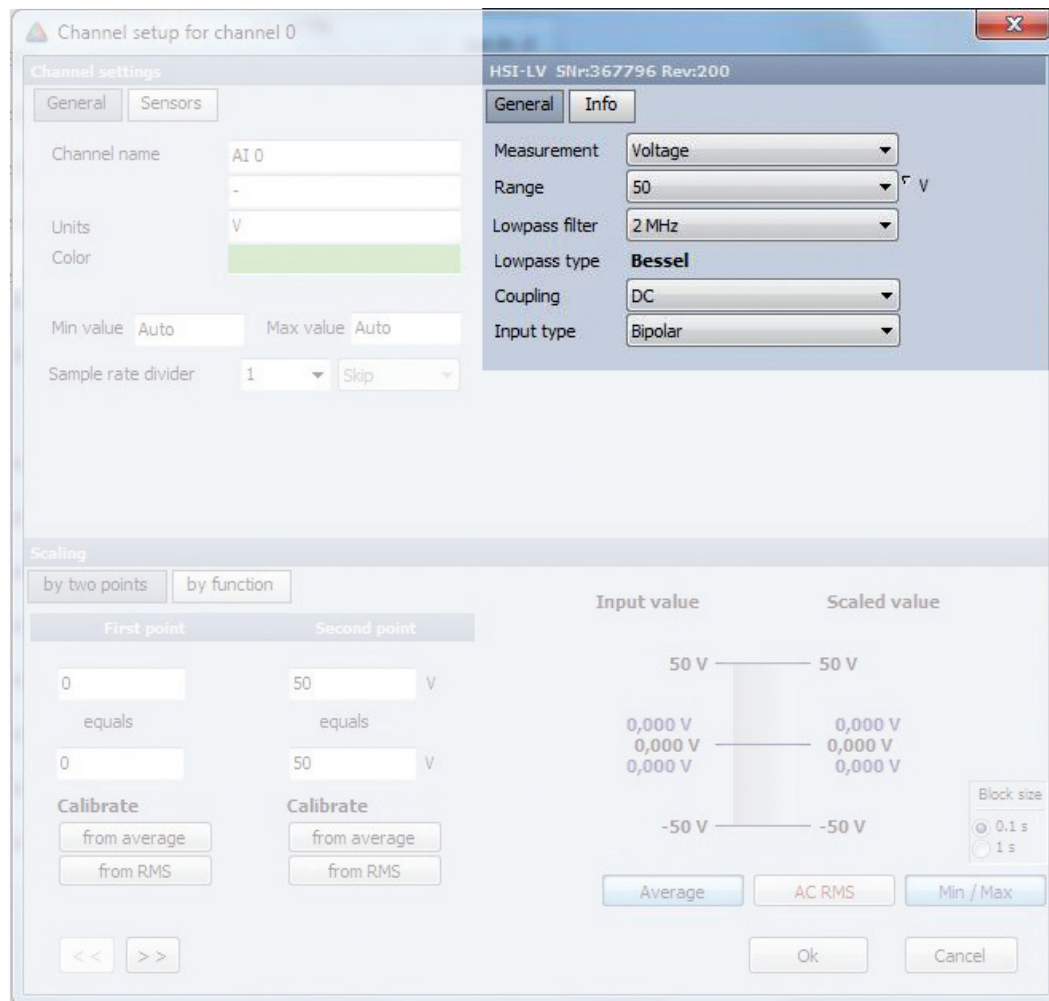
☐ Keep amplifier buttons locked after closing Dewesoft
☐ Lock amplifier buttons with PowerOnDefault

SLOT	ON/OFF	C	NAME	AMPLIFIER (008)	CAL	SETUP
0	Unused	AI 0	HSI-LV 50 V .. 100 kHz (BU)	SN: 367796	Auto	Set ch. 0
1	Unused	AI 1	DAQP-LV 10 V .. 100 kHz (BE)	SN: 371273	Auto	Set ch. 1
2	Unused	AI 2	DAQP-LV 10 V .. 100 kHz (BE)	SN: 371284	Auto	Set ch. 2
3	Unused	AI 3	DAQP-LV 10 V .. 100 kHz (BE)	SN: 371272	Auto	Set ch. 3
4	Unused	AI 4	DAQP-HV 20 V .. 300 kHz (BE)	SN: 369955	Auto	Set ch. 4
5	Unused	AI 5	Daqcard direct 5V		Auto	Set ch. 5
6	Unused	AI 6	Daqcard direct 5V		Auto	Set ch. 6
7	NA	AI 7	PAD-V8-P 2.5V	SN: 220951	NA	Set PAD 7

After programming the address all modules should be found in the amplifier section.
SN, range and filter will be shown automatically.

The last column "SETUP" will be used now to setup the amplifiers.

The setupscreen of the selected amplifier will be opened where the settings of the modules could be made.
The picture on the next page will give an example.



Only amplifier settings herer are important in this case, all the other settings could stay untouched.

The settings will be immediately set into the module after selecting it. The flashing LED on the module will indicate this.

In case of a PAD or EPAD module the setup looks different:

7	NA	AI 7	PAD-V8-P 2.5V	SN: 220951	NA	Set PAD 7
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DEWEConfig

PAD on channel 7

PAD-V8-P SN:220951 Rev:2.01

Module range

10 V

Averaged [values]

8

<< Back to channel setup

SLOT	ON/OFF	C	NAME	PHYSICAL VALUES	CAL	SETUP
0	Unused		Slot 7 Sub 0	U -0,08 [mV] -1E4 1E4	Auto	Setup
1	Unused		Slot 7 Sub 1	U -0,07 [mV] -1E4 1E4	Auto	Setup
2	Unused		Slot 7 Sub 2	U 0,01 [mV] -1E4 1E4	Auto	Setup
3	Unused		Slot 7 Sub 3	U -0,02 [mV] -1E4 1E4	Auto	Setup
4	Unused		Slot 7 Sub 4	U -0,02 [mV] -1E4 1E4	Auto	Setup
5	Unused		Slot 7 Sub 5	U -0,05 [mV] -1E4 1E4	Auto	Setup
6	Unused		Slot 7 Sub 6	U -0,09 [mV] -1E4 1E4	Auto	Setup
7	Unused		Slot 7 Sub 7	U 0,01 [mV] -1E4 1E4	Auto	Setup

A PAD or EPAD module provides the data only via a serial interface. This module, even if it is a single slot module, could measure up to 8 channels which are read out over serial interface only. So therefore it could not be used for signal conditioning. But data could be read out over serial interface from a test pad for example. And also on this module address and range has to be set.

Save setup and load module setups

After setting up the amplifiers, the setup could be stored and later reload in case different amplifier settings are needed on different applications.

DEWESoft - Setup: A_DEMO.d7s

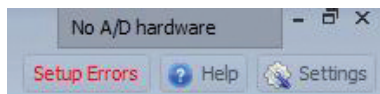
New Setup
Load Setup
Load Last Setup
Load Display & Math Setup
Save Setup
Save Setup As ...
Exit

1 A_DEMO
2 peter-PADAO

☐ Keep amplifier buttons locked after closing Dewesoft
☐ Lock amplifier buttons with PowerOnDefault

	AMPLIFIER (008)	CAL	SETUP
	10 V .. 2 MHz (BU) DAQP-LV SN: 367796	Auto	Set ch. 0
1	10 V .. 100 kHz (BE) DAQP-LV SN: 371273	Auto	Set ch. 1
2	10 V .. 100 kHz (BE) DAQP-LV SN: 371284	Auto	Set ch. 2
3	10 V .. 100 kHz (BE) DAQP-LV SN: 371272	Auto	Set ch. 3

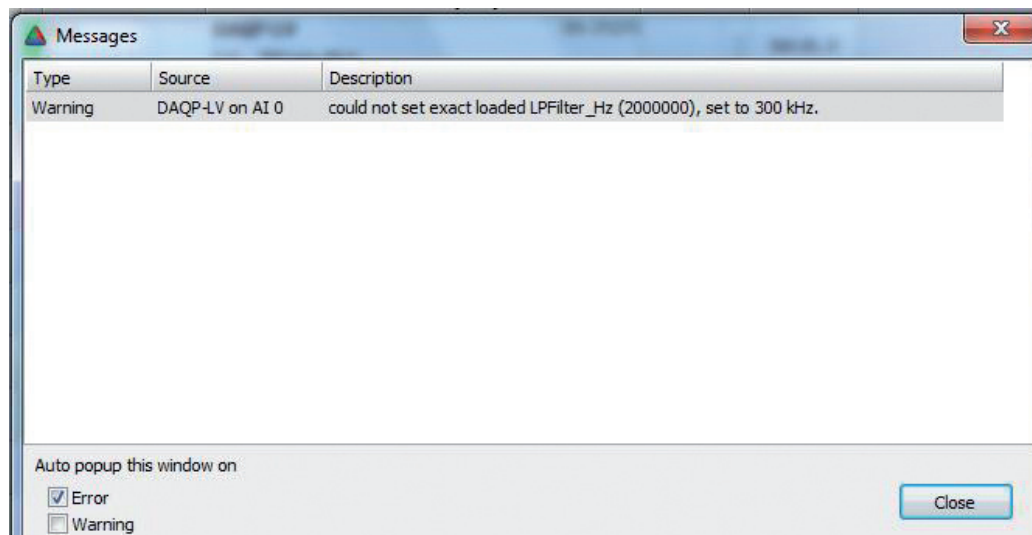
If at reload the setting in the setup will not fit to amplifiers because of wrong amplifier installed a warning will come up.



Click on **Setup Errors** and an error list will be shown.

In the setup which was loaded a HSI amplifier was used and set to 2 MHz bandwidth.

In the actual configuration a DAQP-LV amplifier is used, where the maximum bandwidth is only 300kHz.



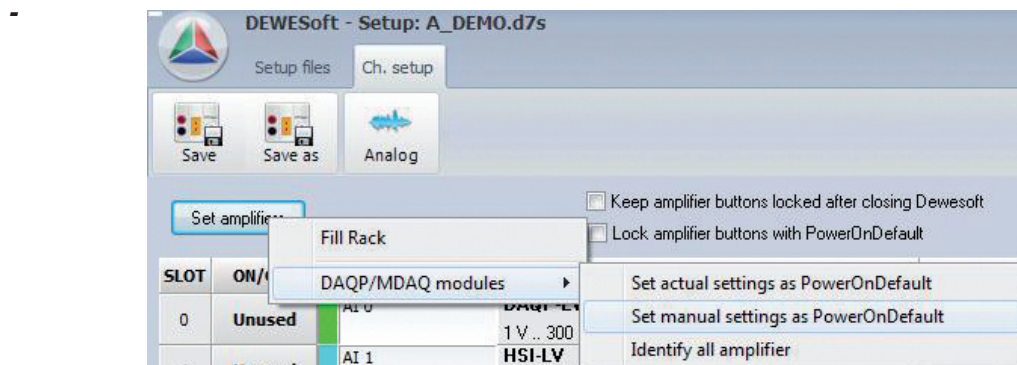
Set power on default

If a signal conditioning rack is used, it is operating almost stand alone without any computer. So configuration is done once. But what will happen in case of a power lost of the signal conditioning rack, and after power up again?

Here the amplifier either will set the manual settings (set with push button on the front of the module), or the settings made with software DEWEConfig.

This could be defined and programmed in DEWEConfig.

- **Klick on** 



DEWEConfig

■ Set actual settings as PowerOnDefault

This will set the actual settings of the amplifier configured in DEWEConfig as power on default. If system loses power or you turn on and off the system, the modules will remember this at power on without any additional configuration.

■ Set manual settings as PowerOnDefault

This function will set the amplifier to the settings which are manually set (pushbutton on amplifier). This disables the function "SET actual settings as PowerOnDefault" above.

Info: While DEWEConfig is running buttons are locked, manual settings could be only done if DEWEConfig is closed.

■ Identify all amplifiers

Set amplifiers

☐ Keep amplifier buttons locked after closing Dewesoft
☐ Lock amplifier buttons with PowerOnDefault

SLOT	ON/OFF	C	NAME	AMPLIFIER (015)	CAL	SETUP
0	Unused	AI 0	DAQP-LV 1 V .. 300 kHz (BU)	SN: 371273	Auto	Set ch. 0
1	Unused	AI 1	HSI-LV 10 V .. 100 kHz (BE)	SN: 367796	Auto	Set ch. 1
2	Unused	AI 2	DAQP-LV 10 V .. 100 kHz (BE)	SN: 371284	Auto	Set ch. 2

A yellow marker will run trough all the amplifiers, at the same time you should see the corresponding amplifiers lights (LEDs) flashing too in the same slot. This function is used to check the address of the amplifiers.

If the yellow flash in software does not correspond to flash on module at the same slot, program module address, like described in point 2, has to be performed again.

Lock buttons

Set amplifiers

☒ Keep amplifier buttons locked after closing Dewesoft
☒ Lock amplifier buttons with PowerOnDefault

SLOT	ON/OFF	C	NAME	AMPLIFIER (015)	CAL	SETUP
0	Unused	AI 0	DAQP-LV 1 V .. 300 kHz (BU)	SN: 371273	Auto	Set ch. 0
1	Unused	AI 1	HSI-LV 10 V .. 100 kHz (BE)	SN: 367796	Auto	Set ch. 1

The modules could be also set manually with the pushbuttons at the front of the module, if DEWEConfig is not started. This could also happen by excitant and would change the setting of the module, and therefore also the scaling of the system connected which would give wrong results.

To avoid this

- keep amplifier buttons locked after closing DEWEConfig (keeps the buttons locked after DEWEConfig is closed)
- lock amplifier buttons with PowerOnDefault.

If this is checked and "Set actual settings as PowerOnDefault" is executed, the buttons are locked also at start up of the module.

INFO: "Set manual settings as PowerOnDefault" will not delete button lock at power on.



To disable button locking at manual settings:

- Disable lock amplifier buttons with PowerOnDefault

☐ Lock amplifier buttons with PowerOnDefault

- Execute "Set actual setting as PowerOndefault"

Set actual settings as PowerOnDefault

So button lock will be disable at PowerOnDefault

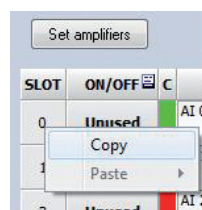
- Execute "Set manual settings as PowerOnDefault"

Set manual settings as PowerOnDefault

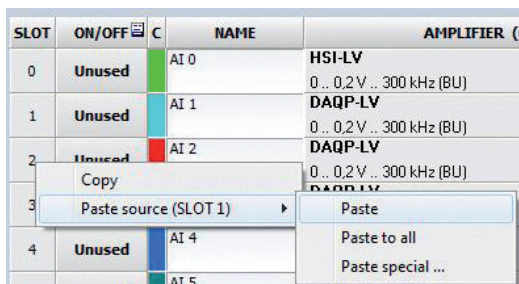
Copy and paste settings to more amplifiers

- Right click slot which should be copied (Slot x)

- Select copy



- Right click on slot where to paste



- Paste

- Paste to all

- Paste to special

-> will copy settings only to selected slot

-> will copy settings to all modules

-> brings up a graphical user interface where start slot and end slot could be defined and additional selections which settings should be copied.

DEWEConfig

Paste source (SLOT 1)

Paste from : SLOT 3 Paste to : SLOT 3

Paste	Property name	Property value
No	Used	False
No	Stored	True
Yes	Description	-
Yes	Unit	V
Yes	UserScaleMin / Max	Auto / Auto
Yes	SRDiv / SRType	1 / Skip
Yes	Scale / Offset	1 / 0
Yes	AutoGroup	Off
No	Sensor	
Yes	MeasuredValue	VOLTAGE
Yes	Range	0 .. 0,2 V
Yes	LPFilter_Hz	300000
Yes	LPFilter_Type	BU

Ok Cancel