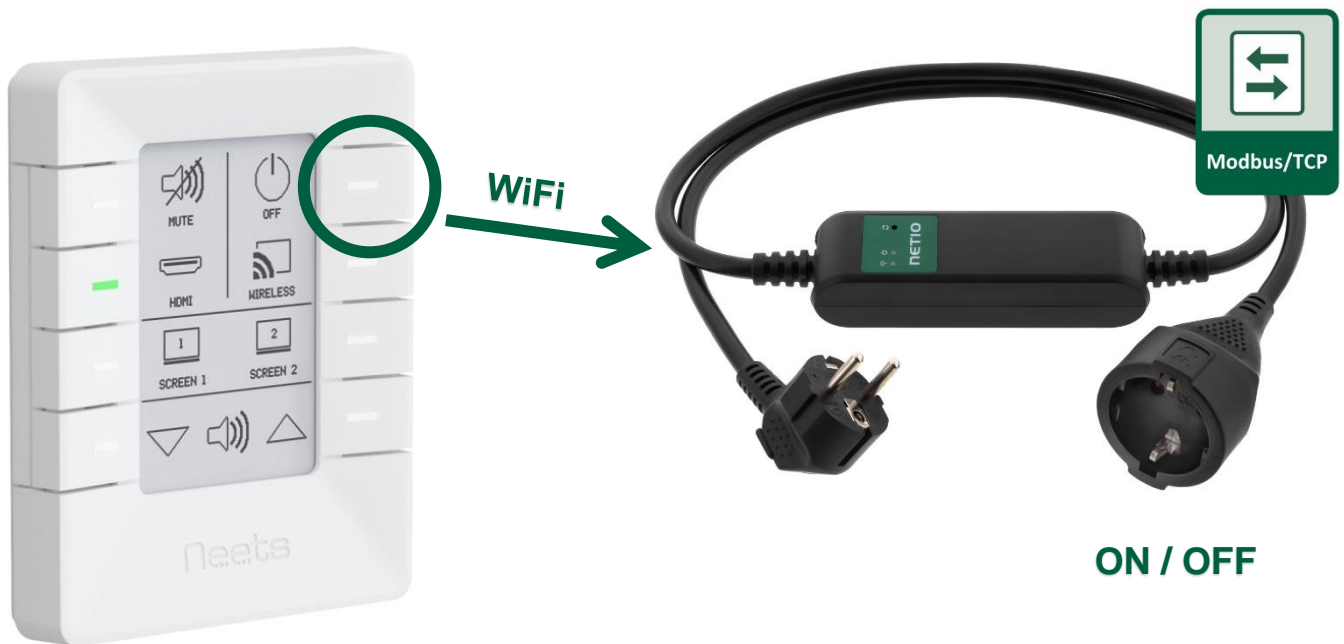# NETIO PowerCable Modbus 101x Neets Installation Guide in 10 steps

How to control LAN connected power sockets with one electrical output from the Neets devices.

WiFi

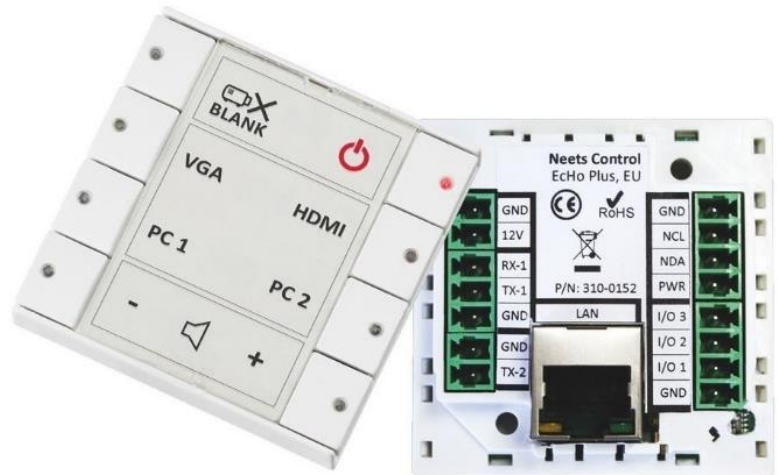**Modbus/TCP**

ON / OFF

Tested software & devices

- **PowerCable Modbus 101x** (firmware 2.3.9 and later)
- Neets Project designer (version 1.25.1 and later)
- **Neets Echo plus** (firmware 3.24.0 and later)

You can do with Neets & NETIO power sockets together

- Switch **On** or **Off** any power socket output by the button.
- **Toggle** state of any power socket output by the button.
- **Initiate reset sequence** (short Off) on defined power output by the button.
- Show output state by LED in the button.

- Define **PowerUp sequence** / delay (by NETIO PowerUp delays + PowerUp State).
- Indicate minimal / maximal power (W) or current (mA) consumption on defined output by LED blinking. Require NETIO device with power metering.

Compatible Neets devices

- Neets **Echo plus**
- Neets **Uniform**
- Neets **Sierra II**
- Neets **Lima**
- Neets **Tango**
- Neets **Alfa II**

Compatible NETIO devices

- NETIO **PowerBOX 3Px**
- NETIO **4**
- NETIO **4All**
- NETIO **PowerCable Modbus 101x**

- NETIO **PowerPDU 4C**
- NETIO **PowerPDU 4PS**
- NETIO **PowerDIN 4PZ**

(1) Discover NETIO PowerCable on the LAN

Use NETIO Discover to find your NETIO PowerCable device.

NETIO Discover can be downloaded at https://www.netio-products.com/en/download
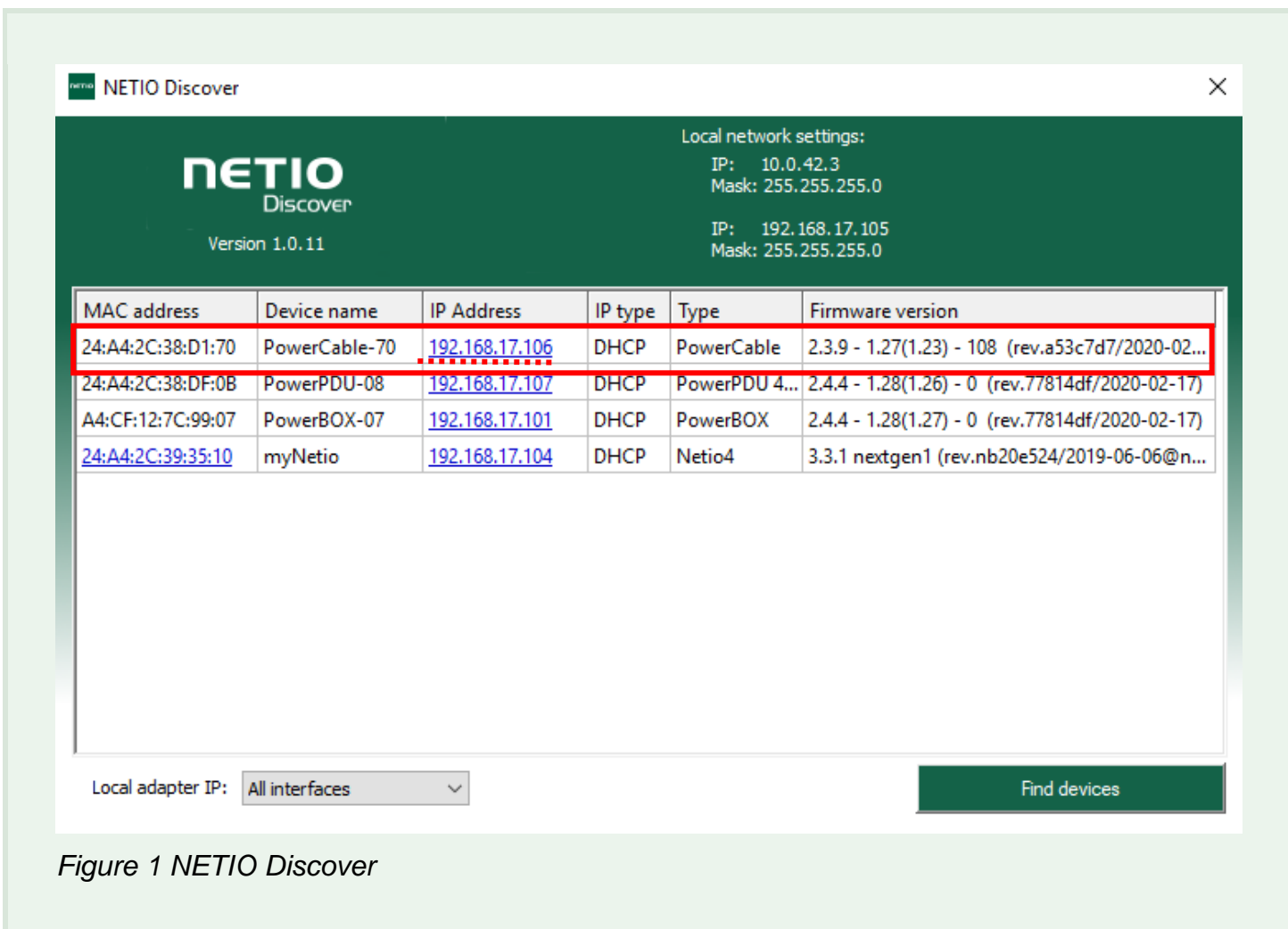

Figure 1 NETIO Discover

Open web configuration in web browser using device IP address (192.168.17.106 in our example). You can click on the IP address in NETIO Discover to do so.

(2) Device Web login

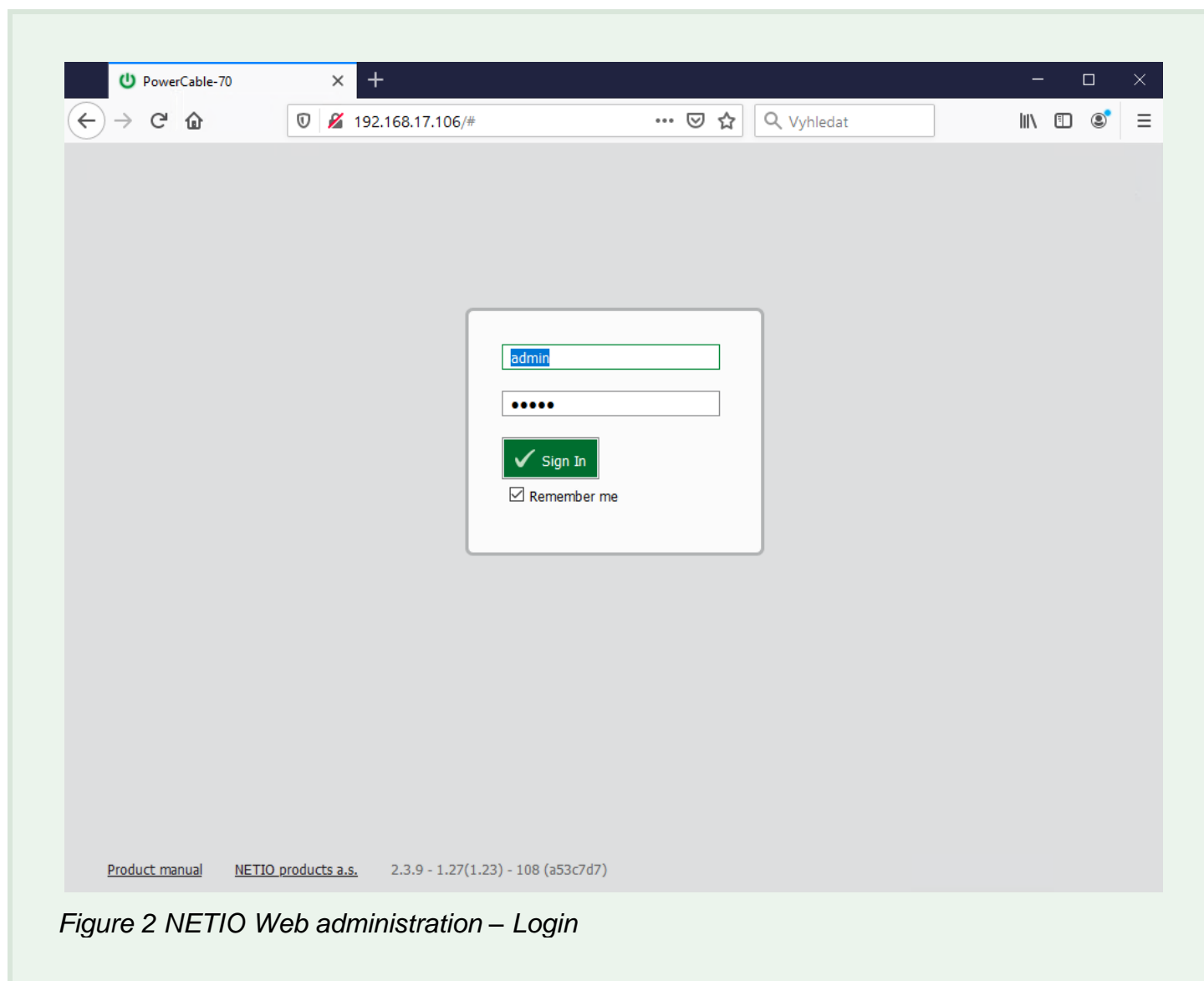Log in to web administration. Default username / password is admin / admin

Figure 2 NETIO Web administration – Login

(3) Device Web administration

Try to control the power socket output.

- LEFT MENU: **Outputs**
- Use Off/On control element and change output state to make sure, you are connected to the correct NETIO device.

- Check your device has supported firmware version according to the top page in this document
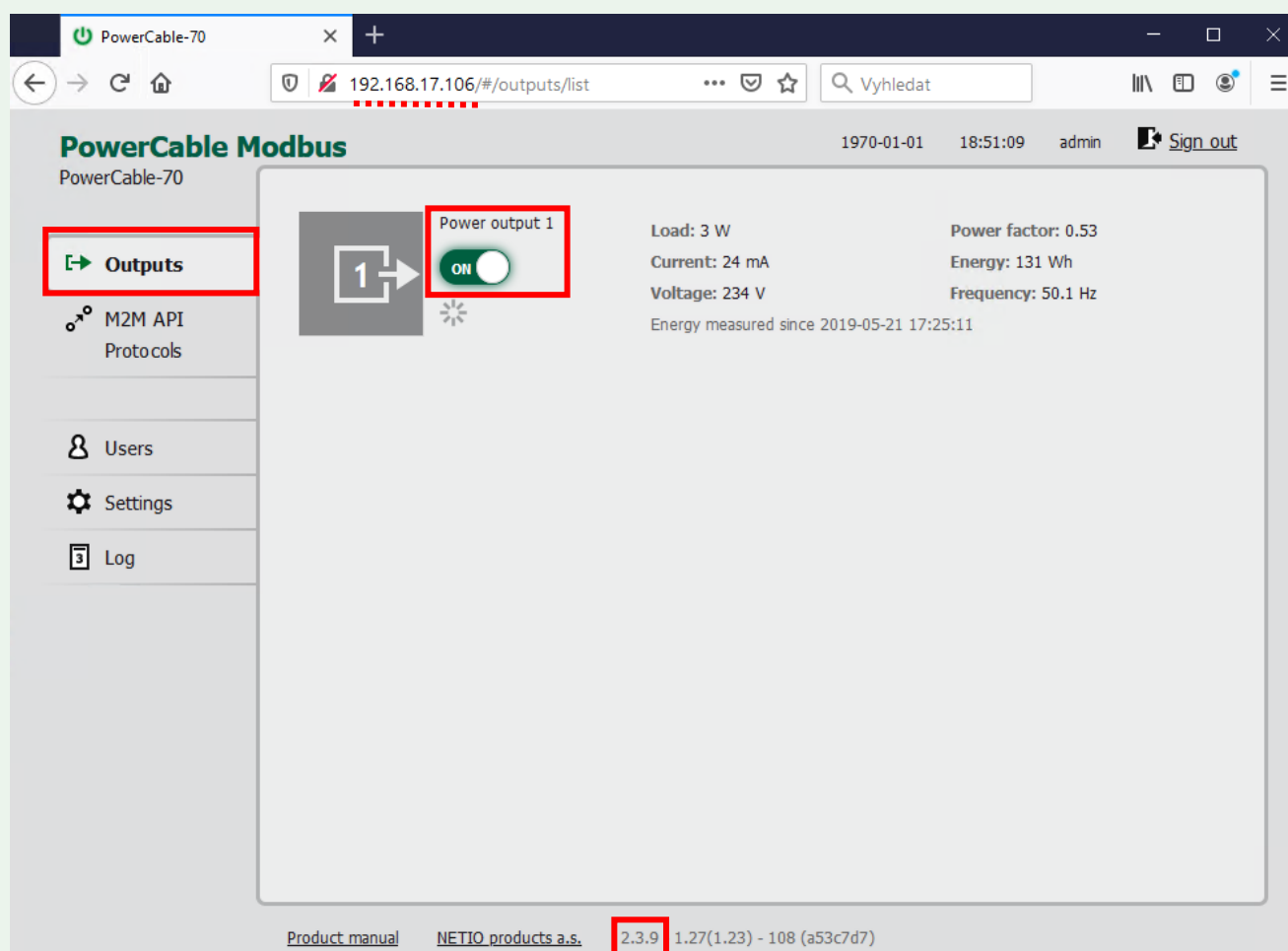

Figure 3 NETIO Web administration – Output control

(4) Enable protocol Modbus/TCP

- LEFT MENU: - **M2M API Protocols**
- Check „**Enable Modbus/TCP**" and check Port (default 502)
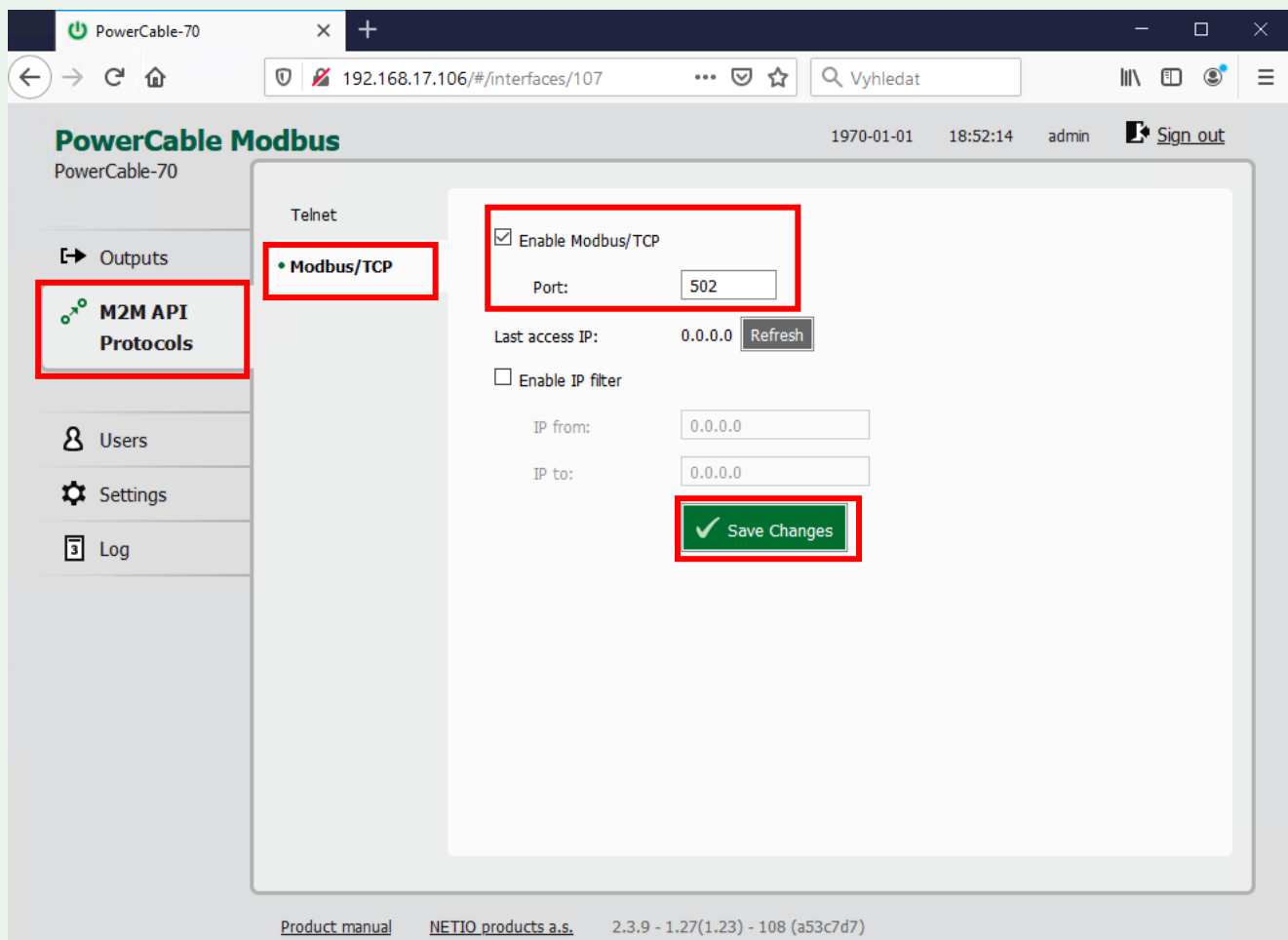- Save Changes

Figure 4 NETIO Web administration - M2M API Protocol / Modbus/TCP enable

The NETIO device is now ready for use with Neets control system.

(5) Do not use default password

Default username / password for the NETIO device is "admin" / "admin".
It's only device settings access, but professional installations we recommend you to change it.

Set your own password for admin the NETIO device.
- LEFT MENU: Users
- Enter Current password (default admin)
- Enter Password and Confirm password
- Save Changes

Figure 5 NETIO Web administration - Admin password change

Neets configuration

(6) Start Neets Projects Designer

Use Neets Project Designer to create a **new blank project** with Neets EcHo Plus.

- Select **System** from the bottom menu.
- Make sure, your Neets and NETIO devices use the same IP subnet.
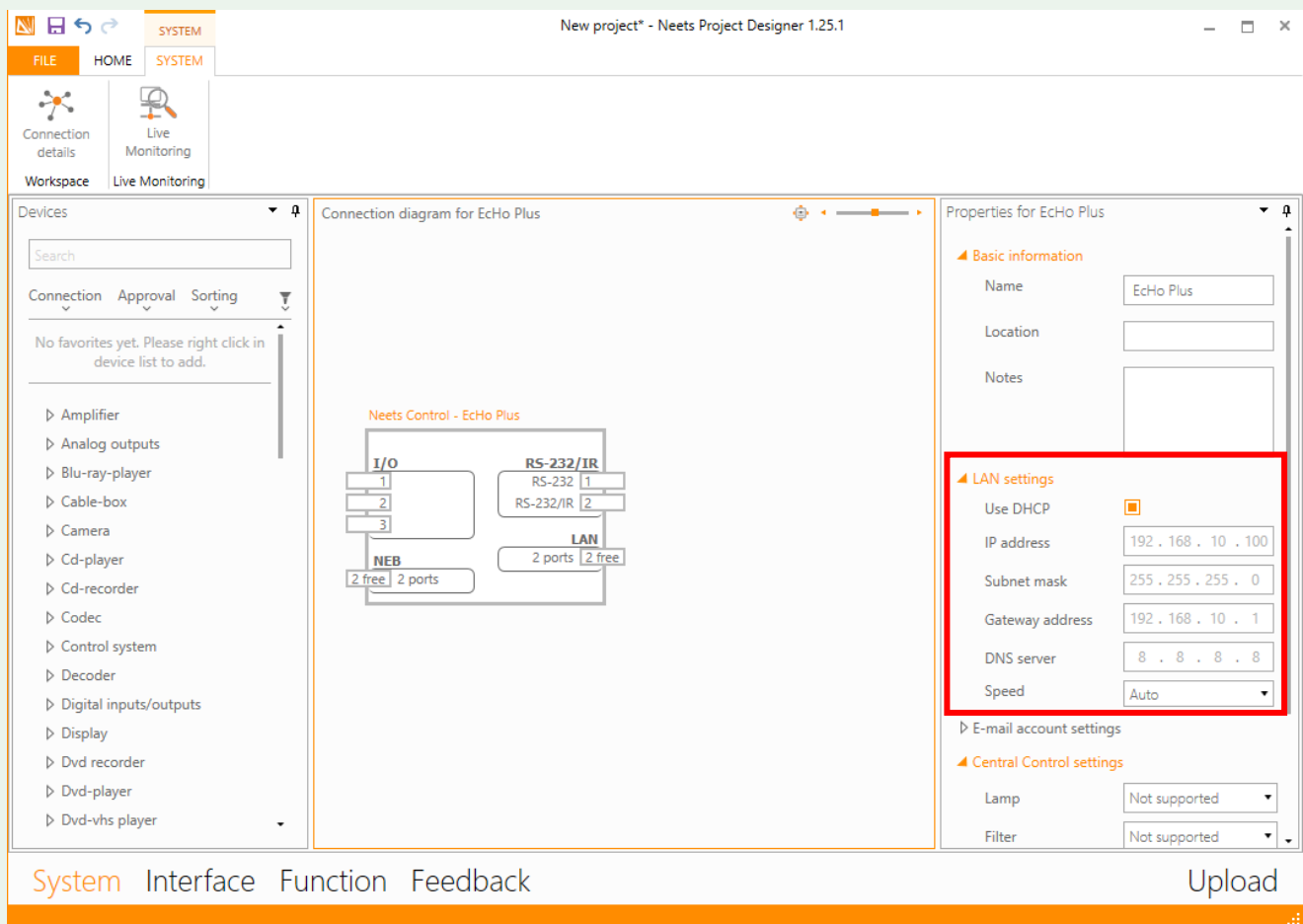- We have set up EcHo Plus to use DHCP in our example.

Figure 6 Neets Project designer – System / LAN settings

(7) Add NETIO device in the System view

- Window "**Devices**" - Navigate to **Others** / **NETIO Products**

- Drag&drop device "**PowerCable**" to window "Connection diagram for EcHo Plus"

- Click on "PowerCable" and enter IP address and Port in "LAN Settings"
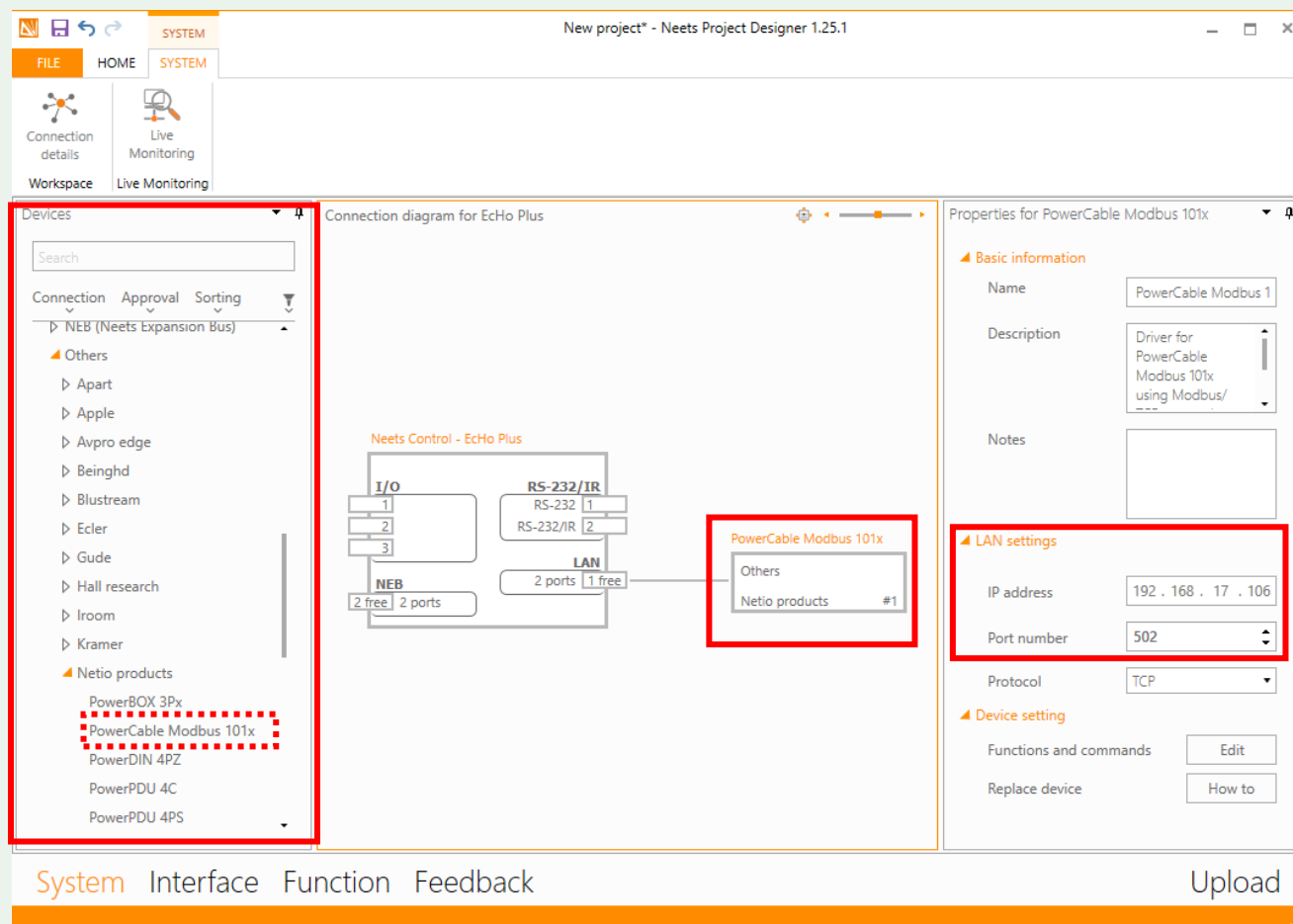 (in our example 192.168.17.106 and port 502)

Figure 7 Neets Project designer – System / NETIO device IP config

(8) Edit EcHo Plus Interface

Select **Interface** from the bottom menu.

Our example uses top **left button** to control output 1 – invert status of the output (Toggle) by pressing the button.
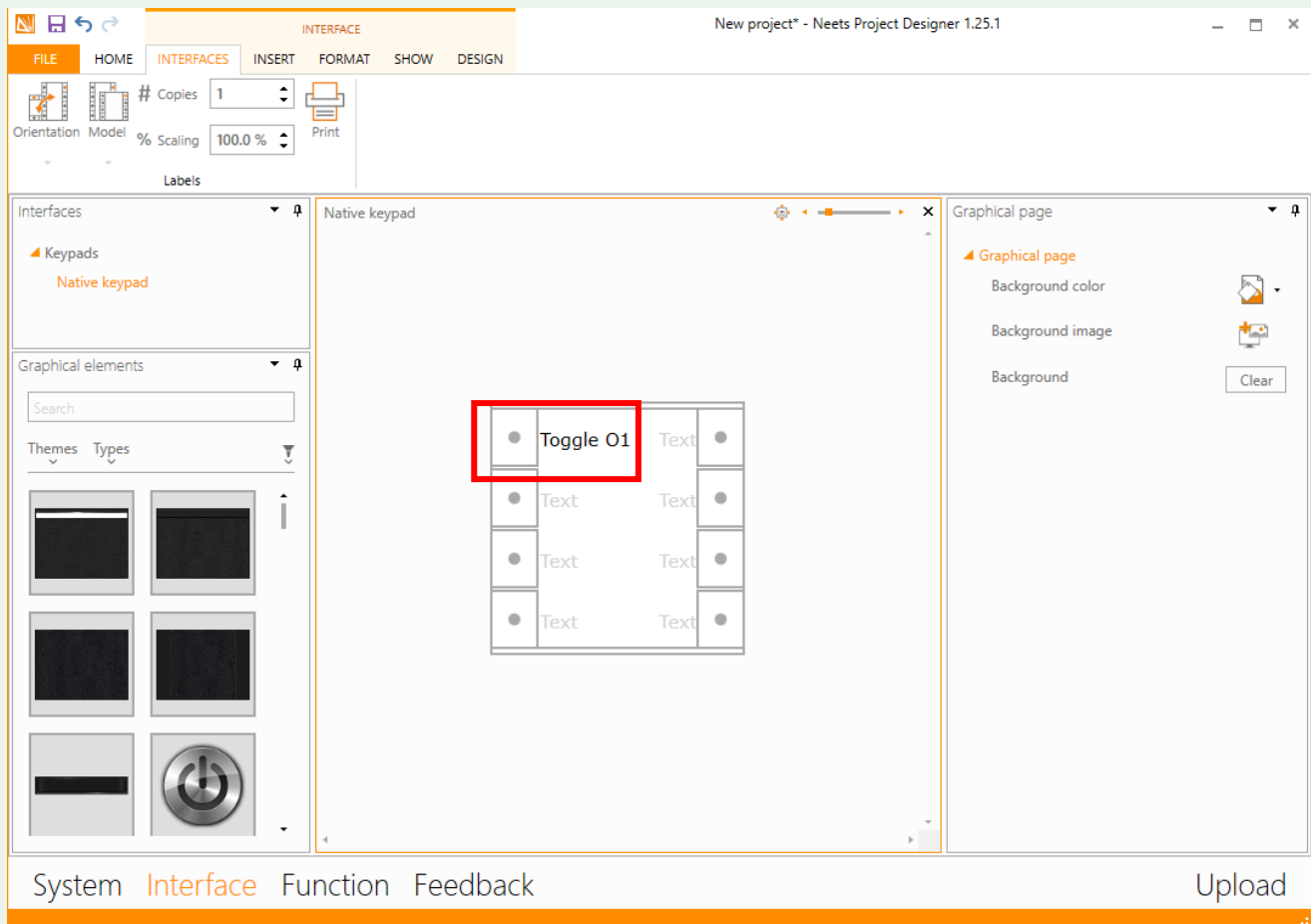

Figure 8 Neets Project designer – Interface

(9) Define EcHo Plus function per button

- Select **Function** from the bottom menu.

- Drag & drop sequence "**Output 1 = Toggle**" to the **top left button**

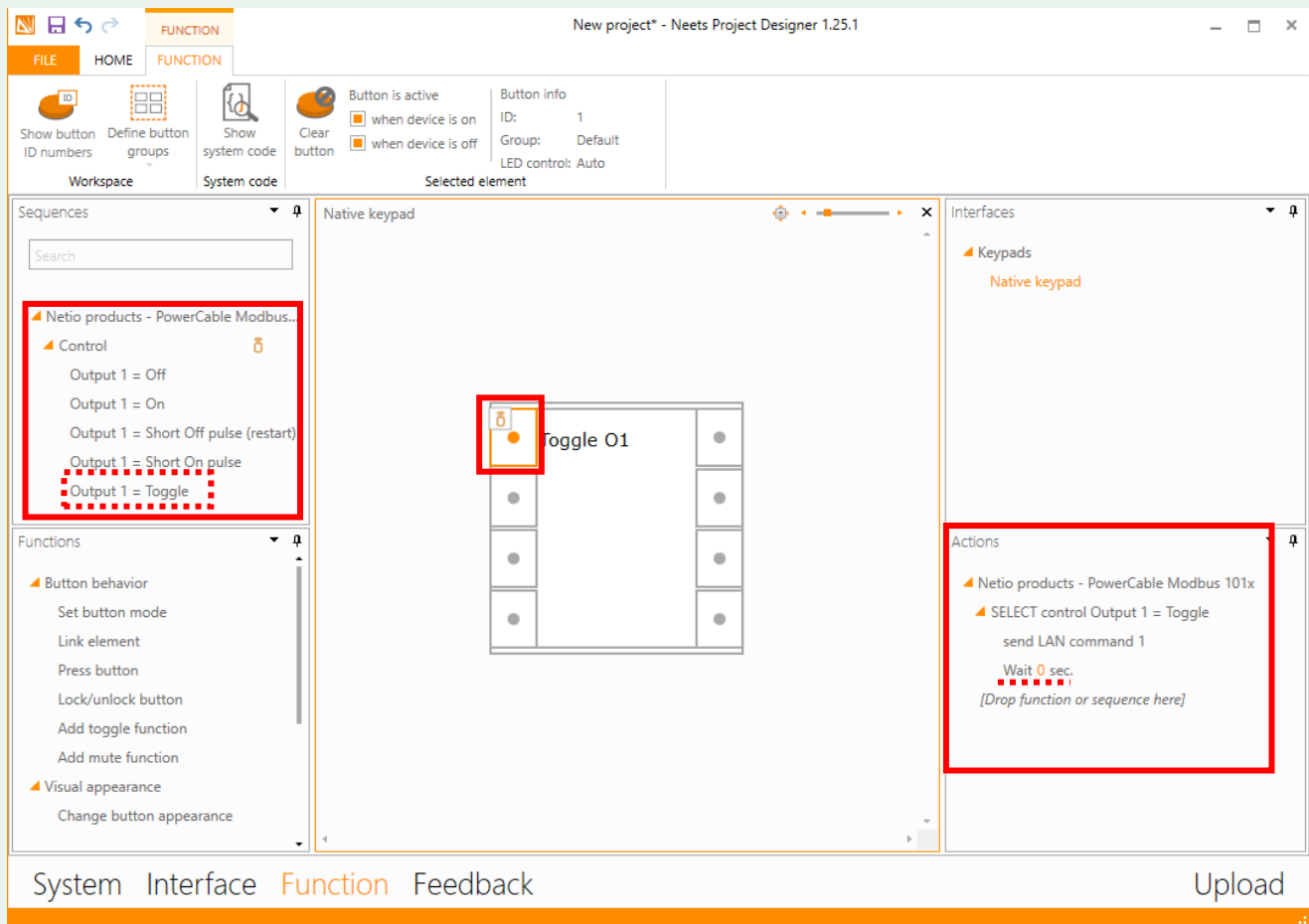- Set the Wait time to "**0**" in "**Action**" window

Figure 9 Neets Project designer – Function

(10) Upload and test!

- Now, you are ready to upload the project to EcHo Plus

- When upload finishes and EcHo Plus starts use the top left button on EcHo Plus to control power Output 1.

  Every time you press this button on EcHo Plus the Power Output 1 should change its state from On to Off or vice versa.

NETIO AN44 example project

We have created the example projects to show Functions (output control) and Feedback (Monitoring of output state).
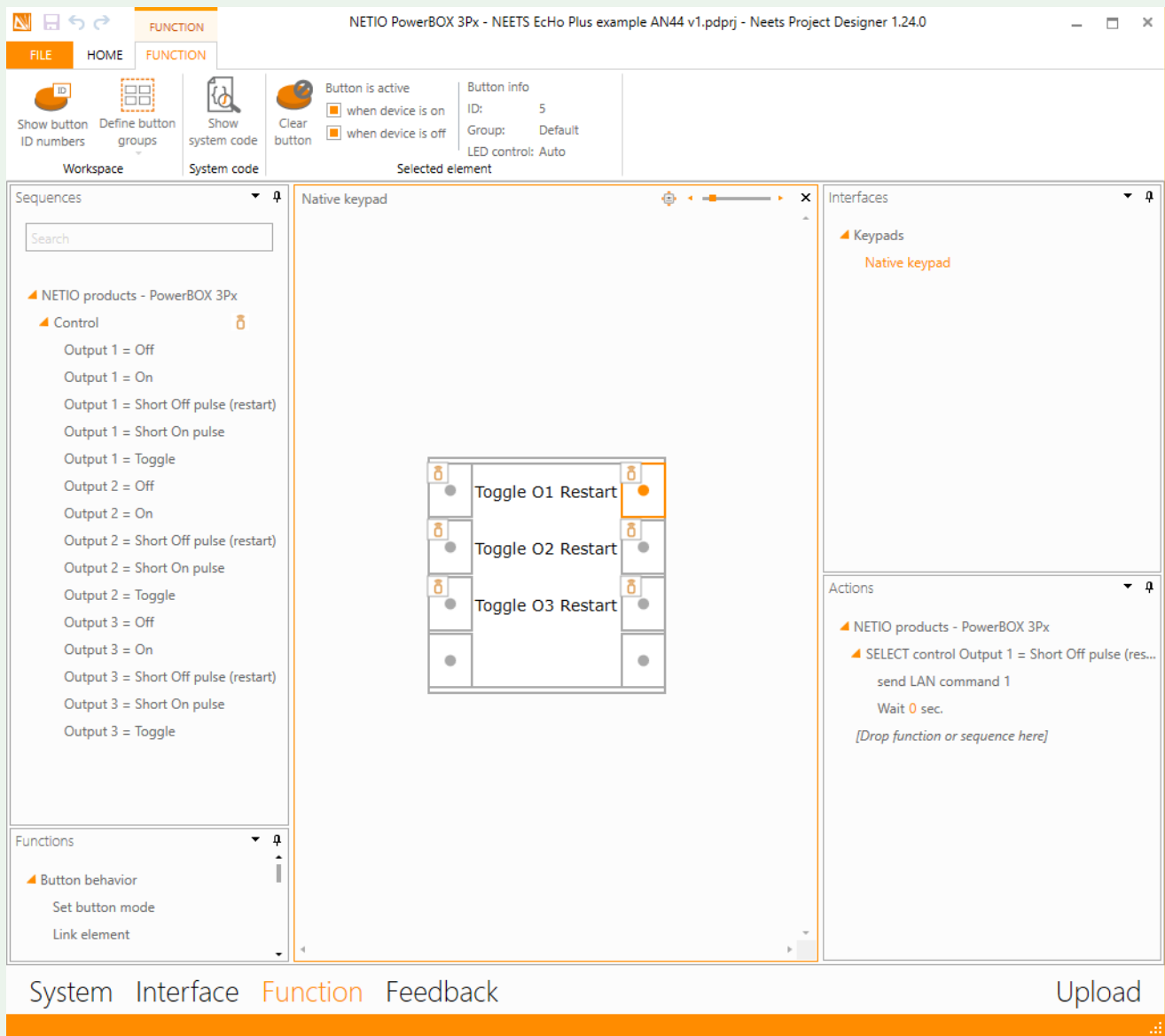

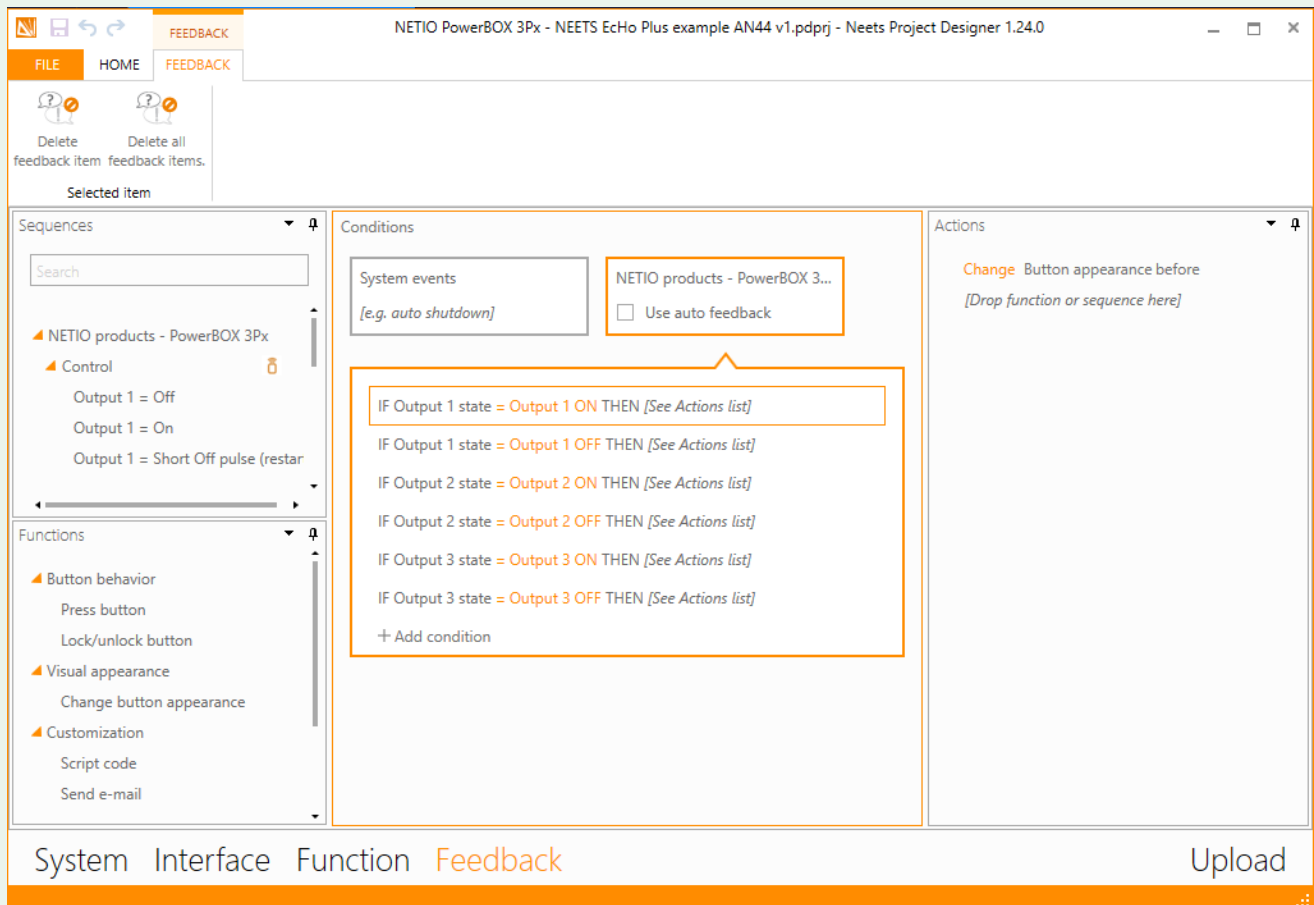*Figure 10 Neets Project designer – NETIO example / Functions*

Figure 11 Neets Project designer – NETIO example / Feedback

NETIO Application Note

On the manufacture website you can find Application Note how to make NETIO working with NEETS product: AN44 – EcHo Plus (NEETS) for AV applications controlling electrical power sockets 230V

You can download example project for Neets Project Designer there.