FAQ PBX Suite

In general

How easily can I program and configure the PowerBox with the tool?

Thanks to the very comprehensive and powerful tool with different analysis and simulation capabilities, it´s very easy to program and configure the PowerBox.

Can I use multiple boxes in one system?

Yes, currently you can use two boxes in one system.

How about multi-user licenses?

Each license is tied to one computer. If you need further licenses, please contact us for an individual offer.

Can I use my actuator with the PowerBox?

In doubt, send us a data sheet or a sample thereby we can analyze the current profile.

How can I realize a special function?

There are many options to combine the available functions. If you have further questions please contact us.

How can I analyze a shutdown during operation?

You should analyze the peak current consumption by increased sampling rate.

Powerbox Manager

If I open the Powerbox Manager and the PBX isn't shown, what seems to be the trouble?

Please select <Discover Devices>. Is the PBX listed in the opening window?
No:
Perform the following checks:
- The PBX is supplied with power, indicated by the Power LED turned on. If not, check the wiring of the power lines, battery ok/dc power supply switched on.
- The link-LED at the PC Ethernet interface turns on if you plug the Ethernet cable from the PBX. If not, check the wiring of the Ethernet lines.
- The assigned IP address of the Ethernet interface is in the manner of 10.10.0.x, e.g. 10.10.0.20. If not, either enable "Obtain an IP address automatically" in the properties window of "Internet Protocol Version 4" or manually set an IP address of e.g. 10.10.0.15 with a subnet mask of 255.255.255.0.

Yes:
With the PBX listed in Discover Devices it is confirmed that the Ethernet connection and the assignment of the IP address is correct.
Most likely the firewall setting prevents proper communication between the PBX and your PC.
If you are using Windows 7 or 10 you can setup the firewall as follows:
1. Type in the search field at the Start Menu Win7: "Allow a program through Windows Firewall".
Win10: "Allow an app through Windows Firewall" and select the matching item.
2. If necessary 1st select "Change settings" and afterwards "Allow another program".
3. In the list of the installed programs select the PBX Suite.
4. In <Network location types...> mark all checkboxes: Domain, Home/Work (private) and Public. Confirm by clicking <OK>.
5. Confirm by clicking <Add>.

The PBX device appears at the Powerbox Manager desk, but if I select e.g. "Send Config and Start" from the context menu either nothing happens or an error message appears.

This is likely provoked by a firewall. Please follow the steps described above for the case "Yes".

I changed the configuration but the manner of the PBX hasn't changed as expected.

Please check that you saved the configuration before switching to the Powerbox Manager and selecting "Send Config and Start configuration". Be sure that you haven't selected "Send Configuration". In this case the configuration will only be stored at the PBX device but not started. You can also choose to start a configuration stored on the PBX device.

Structure Editor

Is there anything that should be considered when using the LIN wiper control functionblocks?

The thing to consider is that the LIN block only performs the LIN communication with the wiper. The wiper additionally has to be supplied with power, e.g. using an "HS_15A" functionblock.
For further details please refer to the example "LIN WIPER" in the FAQ configuration.

Is it possible to control a load which is directly connected to the positive battery terminal?

Of course. Just use one of the pwm powerstages in the so called "Lowside" mode. In this mode the powerstage establishes a connection to GND if enabled. By driving the "Dutycycle" input with 0 or 100 % the pwm powerstage acts like a switch.
For further details please refer to the example "PWM LOWSIDE" in the FAQ configuration.

I want to dim the dashboard lights. How can this be done?

This can easily be done using one of the pwm powerstages. Depending on the lights connected to positive battery or GND terminal select mode "Lowside" or "Highside".
For further details please refer to the example "PWM DIM" in the FAQ configuration.

The CAN_Input blocks provide a "Valid" output port. Is there an example on using them?

Yes, please take a look at the example "CAN INPUT TIMEOUT" in the FAQ configuration.

I need to distinguish if an input signal over CAN has never been received, is periodically received or not received. How can this be done?

This task can easily be done by setting the parameter "Timeout" in the CAN input functionblock "CAN_Input". A common value for the timeout is twice to triple the periodic transmission period of the can message containing the signal. By evaluating the "Valid" output it can be distinguished between those cases.
For further details please refer to the example "CAN INPUT VALIDATION" in the FAQ configuration.

I always get can error entries in the error log with every power-on of the PBX device. What can be the cause?

If the PBX90 is configured for sending messages but the external device which is necessary to build up a correct can network is powered off, the nodestate of this interface will become (after some time, depending on the tx rate) Error. To prevent an error entry in the case the CAN network is well-known defect use a CAN_MaskError block for the specific interface.
For further details please refer to the example "CAN MASK ERROR" in the FAQ configuration.

Is there an example about how to power-on several loads in a timely controlled manner?

Yes, please take a look at the "POWER SEQUENCER" example.