



Table of Contents

1	Important and general information	3
1.1	Important information	3
1.1.1	Safety and Warning instructions	3
1.2	Terms and conditions	4
1.2.1	Legend of used icons	4
1.2.2	Support	4
2	Plugin overview	5
2.1	Plugin description	5
2.2	Plugin installation	5
3	Plugin configuration	6
3.1	Functional architecture	6
3.2	Creating interface systems	6
3.3	Interface configuration	8
3.3.1	Master interface configuration	8
3.3.2	Slave interface configuration	9

1 Important and general information

1.1 Important information

Please follow these instructions before and during the use and application on any IPETRONIK product!

1.1.1 Safety and Warning instructions

Please follow the instructions **and** information as contained in the user manual!

1. The user can **influence an electronic system by applying the IPETRONIK product**. This might cause risk of personal injury or property damages.
2. The **use and application of the IPETRONIK product is permitted only to qualified professional staff**, as well as, only in appropriate manner and in the designated use.
3. **Before using an IPETRONIK measurement system** in the vehicle it **has to be verified that no function of the vehicle, which is relevant for secure operation, might be influenced**:
 - by the installation of the IPETRONIK measurement system in the vehicle,
 - by an potential malfunction of the IPETRONIK system during the test drive.

In order to avoid possible danger or personal injury and property damages, appropriate actions are to be taken; such actions have to bring the entire system into a secured condition (e.g. by using a system for emergency stop, an emergency operation, monitoring of critical values).

Please check the following points to avoid errors:

- Adaption of sensors to components of the electrical system / electronics, brake system, engine and transmission control, chassis, body.
- Tap of one or several bus systems (CAN, LIN, ETHERNET) including the required electrical connection(s) for data acquisition.
- Communication with the vehicle's control units (ECUs), especially with such of the brake system and/or of the engine and transmission control (power train control system).
- Installation of components for remote data transmission (mobiles, GSM/GPRS modems, WiFi and Bluetooth components).



The products can be operated in extended temperature ranges greater 70 °C and therefore the operator has to take safety measures to avoid any skin burnings on hot surfaces while touching the products.

4. **Before** directly or indirectly using **the data acquired by an IPETRONIK measurement system to calibrate control units, please review the data regarding to plausibility**.
5. With regard to the application of IPETRONIK products in vehicles during use on public roads the manufacturer and/or registered user of the vehicle **has to ensure that all changes/modifications have no influence concerning the license of the vehicle or its license of operation**.
6. **User does agree to the instructions and regulations as mentioned above**. In case the user does not agree with the instructions and regulations as mentioned above, he has to notify this expressly and immediately in writing to IPETRONIK before confirming the sales contract.

1.2 Terms and conditions

See IPETRONIK website for details: <https://www.ipetronik.com/>

1.2.1 Legend of used icons

**Tip**

This icon indicates a useful tip that facilitates the application of the software.

**Information**

This icon indicates additional information for a better understanding.

**Attention!**

This icon indicates important information to avoid potential error messages.

1.2.2 Support

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Technical support and product information

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e-mail: support@ipetronik.com

2 PlugIn overview

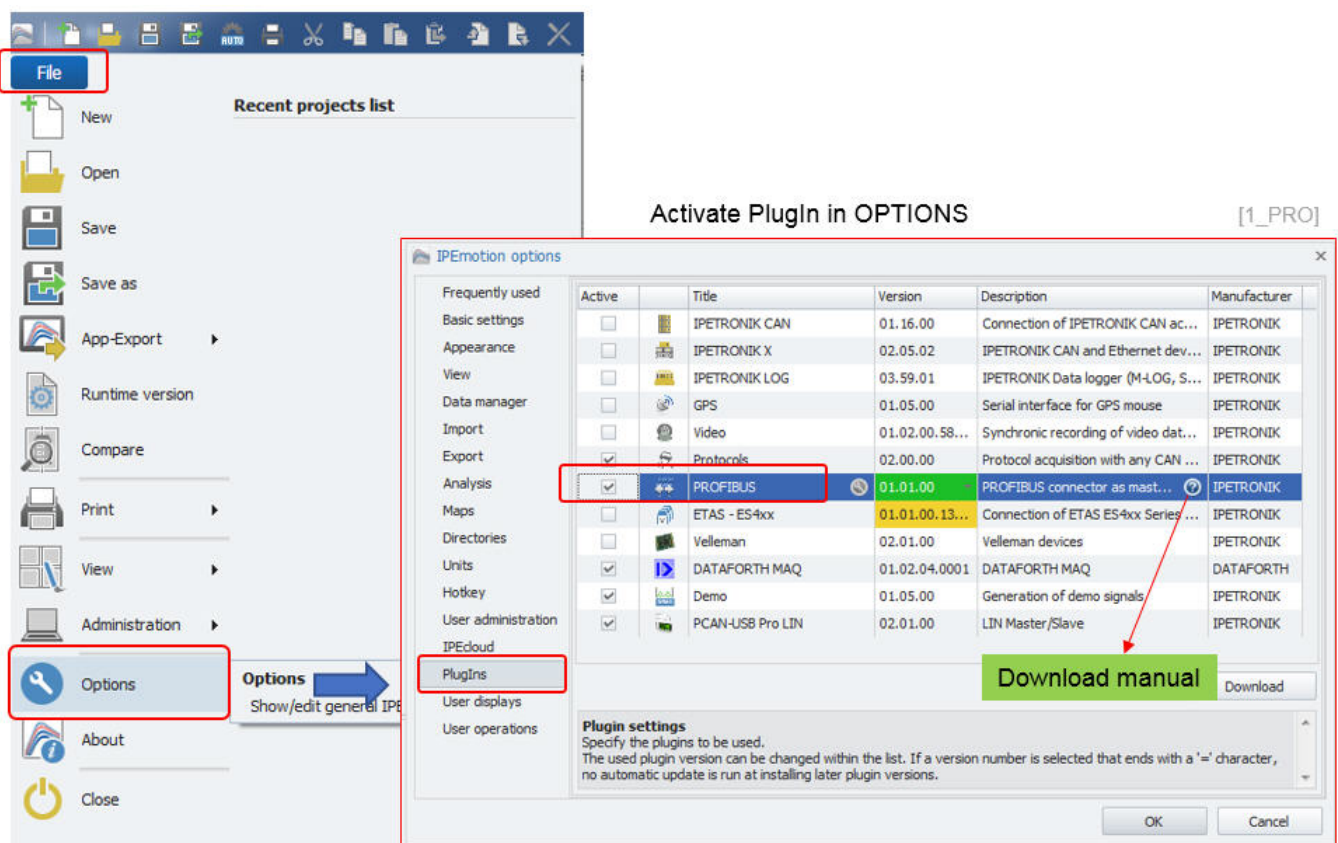
2.1 PlugIn description

The ProfiBus PlugIn is supporting the measurement of data from ProfiBus networks. In order to interface to the networks a dedicated hardware is required. With the PlugIn you can read data and write data to your network.

2.2 PlugIn installation

When you have installed the PlugIn, you need to launch the IPEmotion software. Then you need to access the application menu and open the OPTIONS. In the OPTIONS you can activate the PlugIn as indicated below. In addition to the PlugIn you need to install the USB driver for your selected hardware. The drivers are available on the website of the hardware vendors.

- ▶ Softing <https://industrial.softing.com/en/products/profibus-master-single-channel-usb-interface-card.html>
- ▶ Thorsis <https://www.thorsis.com/en/industrial-automation/usb-interfaces/profibus/ispro-usbx12/>



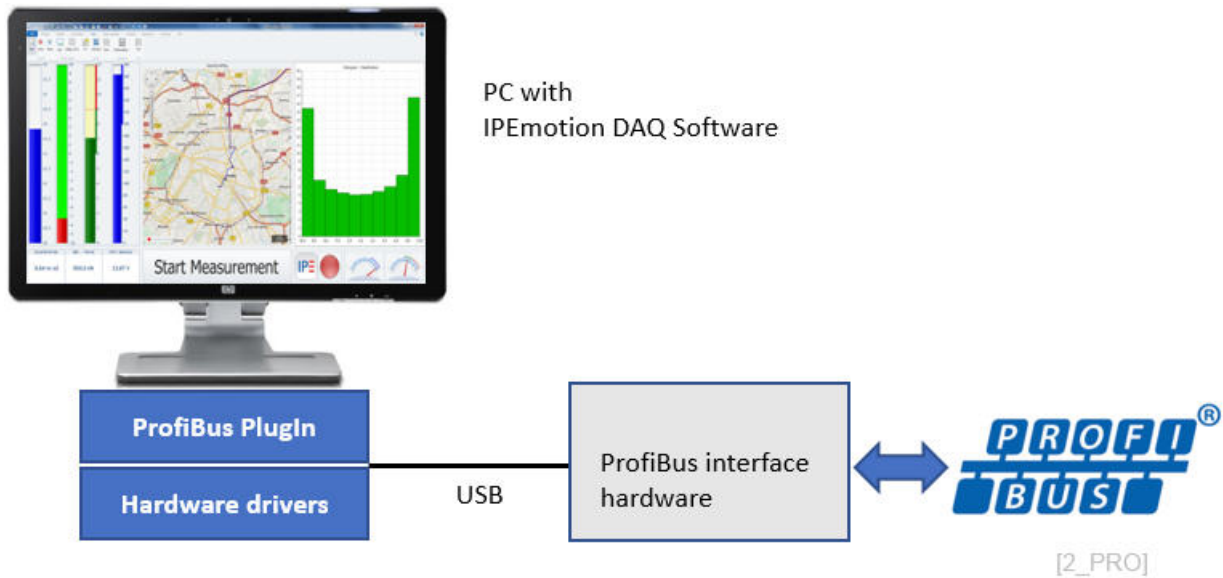
The PlugIn is supporting the following operating systems:

- ▶ 32 bit

3 PlugIn configuration

3.1 Functional architecture

The following diagram shows the schematic system architecture. You need to establish an USB connection between your PC and the ProfiBus interfaces hardware.



Overview of the 2 supported ProfiBus interfaces. The PCI interface of Thorsis is end of life.



Thorsis

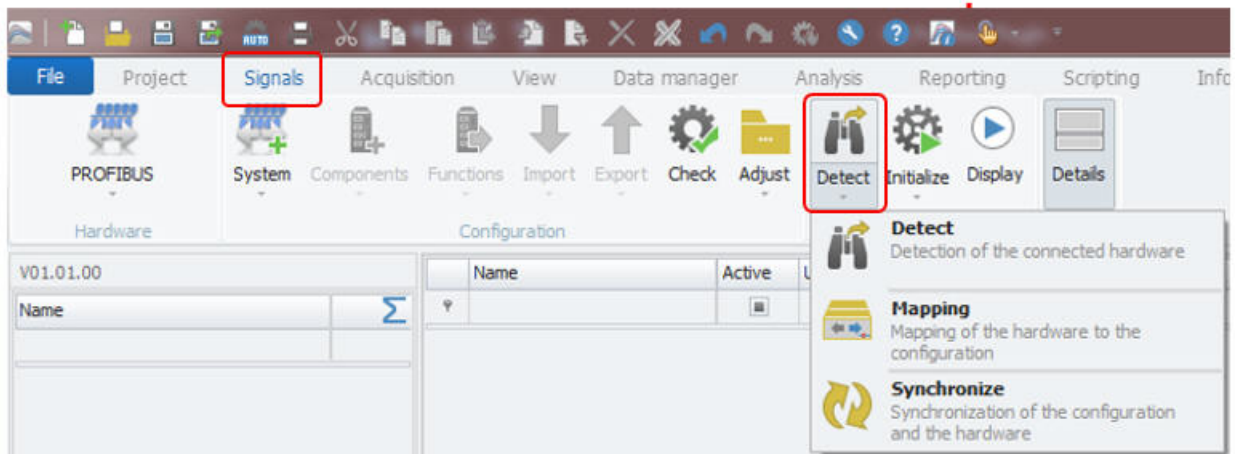


Softing

[3_PRO]

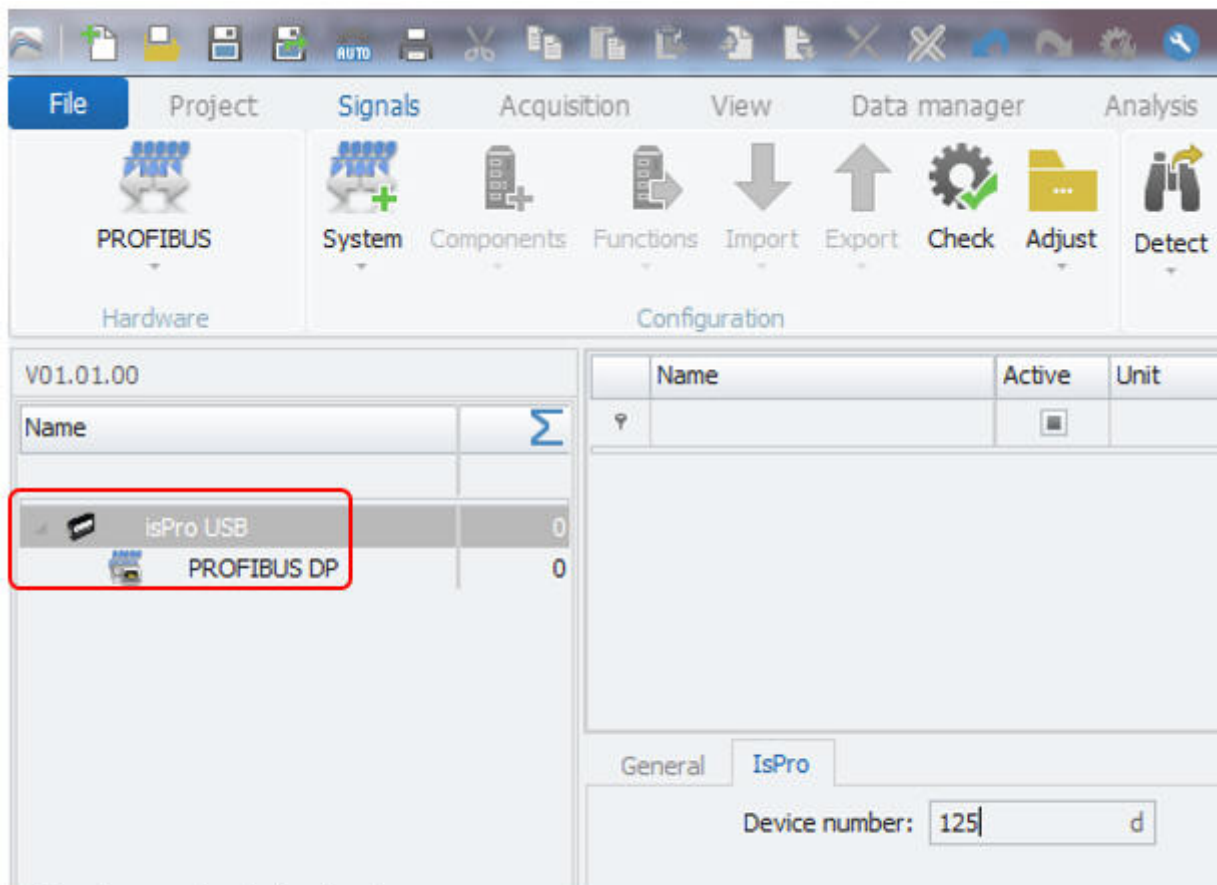
3.2 Creating interface systems

In order to configure your measurement, you need to change to the SIGNALS work space and select the ProfiBus PlugIn from the hardware system drop down list if you like to create the system manually. However due to the USB interface to the PC you can use the automatic detect function from the ribbon to create the interface too.



Hardware detect [4_PRO]

After successful hardware detection the interface with 1 ProfiBus connectors is created. Also, the serial number of the device is displayed on the settings tab sheet of the interface.

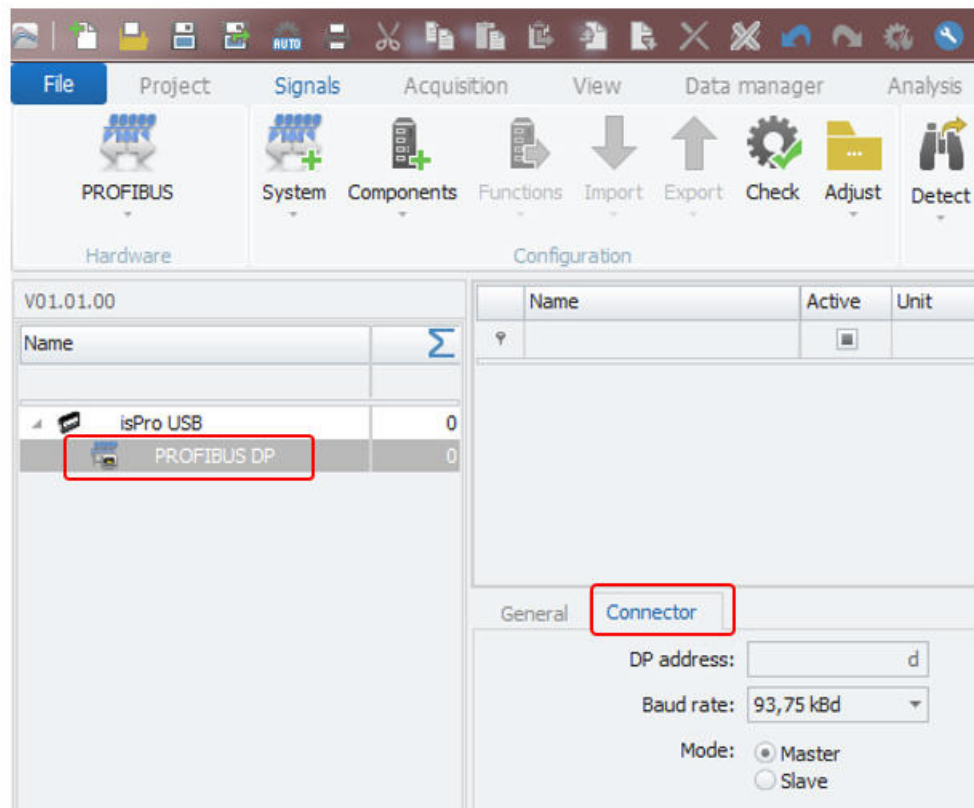


Hardware is detected [5_PRO]

3.3 Interface configuration

3.3.1 Master interface configuration

In progress



[6_PRO]

3.3.2 Slave interface configuration

In progress

The screenshot displays the IPEmotion software interface for configuring a PROFIBUS slave. The main window is titled 'V01.01.00'. The left sidebar shows a tree view of the project structure:

- isPro USB (0)
- PROFIBUS DP (0)
- Slave-1 (0)

The right pane shows the configuration for the selected 'Slave-1' component. The 'Slave' tab is active, and the configuration parameters are as follows:

Parameter	Value	Unit
DP address:	1	d
PROFIBUS ID:	0	h
Watchdog:	<input type="checkbox"/>	
Watchdog response time:	1 s	
Minimal TSDR:	11	d
Extended parameters:		

[7_PRO]

Author: FOT