

PlugIn-Concept –
Open To Everything



IPEmotion PlugIn CANSend

User manual

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2 General information

2.1 About this manual

The manual *IPEmotion PlugIn CANSend* describes the structure of the PlugIn and how to use the features for configuring devices, which are based on the CAN driver, in IPEmotion, taking acquisitions and managing and analyzing the resulting data.

Please read the manual *IPEmotion PlugIn CANSend* carefully to get to know the operating and to learn more about the functions and special features. This manual also contains information for installing and removing the software.

2.2 Version

2.2.1 User manual IPEmotion PlugIn CANSend

This manual has the version number 01.00.

2.2.2 IPEmotion PlugIn CANSend

The descriptions in this documentation refer to the current release with the version number 01.00.

2.2.3 IPEmotion

The descriptions in this documentation refer to the current release with the version number 01.09.



The PlugIn requires at least IPEmotion V01.07 on your computer.

2.3 Legend of the 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.

2.4 Support

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Technical support and product information

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2.5 Related documentations

2.5.1 IPEmotion

The documentation IPEmotion.pdf provides you with a description and useful information related to IPEmotion. This documentation is stored in the following standard language dependent directory: C:\Programs\IPETRONIK\IPEmotion Vxx.xx.xx\Help.






2.5.2 Manual MAL development

The documentation MAL development.pdf provides you with a description and useful information related to the use of the interface with plug-in components and IPEmotion.

2.6 Documentation feedback

At IPETRONIK, the technical publications team strives to produce documentations of the highest quality and values your feedback as a reader and user. If you have any comments or suggestions regarding our product manuals, contact us under support@ipetronik.com.

Please inform us about the following points:

-  Version number (Select *Options* → *Plugins* from the menu to display the version number.)
-  Name of the guide
-  Page number or section title
-  Brief description of the content (e.g. inaccurate instructions, grammatical errors, or information that require clarification)
-  Any suggestions for a general documentation improvement









3 Introduction











The CANSend PlugIn offers you the ability to use a variety of different CAN hardware for importing, for instance, messages and signals from a CANdb. The CAN messages can be send via the CAN bus cyclically, as well as, event-driven.

The CAN system types are separated into groups according their hardware family. The current version supports the following CAN hardware platforms:



-  Vector
-  Kvaser
-  IPEcan/PEAK
-  NI
-  Softing
-  TRAMA
-  M-WiFi
-  ICS-CAN
-  DrewTech
-  I+ME Actia

Each single group contains different CAN types, which can be used for acquiring data. Each type is an independent acquisition system and can be used as a stand-alone devices, as well as, in combination with other types in a CAN bus network. The current IPEmotion PlugIn CANSend version offers the following hardware (they are listed accordingly to the above classification):

-  Vector:
 -  CANcardXLe
 -  CANcardXL
 -  CANcaseXL
 -  CANboardXL
 -  CANboardXLcompact
 -  CANcardX
-  Kvaser:

-  LAPcan
-  PCcan
-  PClcan
-  PClcan II
-  USBcan II
-  Leaf
-  PClcanx II
-  MemoratorPro
-  USBcanPro
-  BlackBird







 IPEcan/PEAK:

-  IPEcan/PCAN-USB
-  IPEcanPro/PCAN-USBpro

 NI:


-  PCI-CAN
-  PXI-CAN
-  PCMCIA-CAN
-  AT-CAN
-  USB-CAN

 Softing:

-  CANcard2
-  EDICcardC
-  EDICcard2
-  CAN-Acx-PCI
-  CAN-Acx-PCI/DN
-  CANusb


 CAN-PROx-PCI

 TRAMA:

 CW-IUSB


 M-WiFi:

 M-WiFi


 ICS-CAN:

 ValueCAN

 DrewTech:

 Mongoose

 I-ME Actia:

 Basic+24 XS

4 Setting up and removing

4.1 System requirements




The minimum hardware and platform requirements for the application of the IPEmotion PlugIn CANSend are outlined below.

4.1.1 Hardware

The minimum hardware requirements correspond to those of IPEmotion.

4.1.2 Platforms

IPEmotion PlugIn CANSend can be run under the following operating systems:

-  Windows XP (32 Bit),
-  Windows Vista (32 Bit),
-  Windows 7 (32 Bit and 64 Bit).

4.2 Installing IPEmotion PlugIn CANSend

The following chapter guides you through the installation process of the CAN PlugIn.



IPEmotion PlugIn CANSend needs administrator rights during the installation. For working with the PlugIn you need at least limited user's or default user's rights (Vista).

The installation of IPEmotion PlugIn cANSend is based on an installation wizard that guides you through the setup process step by step. You can start the installation wizard from the USB flash drive or, if you have downloaded the setup program from the IPEmotion forum at www.ipemotion.com, from the setup file itself.

To install IPEmotion PlugIn CANSend:

1. Start the installation wizard from the USB flash drive or from the setup file.



USB flash drive: Connect the USB flash drive to the USB port of your computer and follow the instructions of the installation wizard.



Setup file: Browse the location of the setup file and double-click **IPEmotion PlugIn CANSend.exe** to start the installation wizard.



*Depending on the used PC operating system, a security warning appears. Click **Run** to start the installation wizard.*

- 2. Setup language/Setup-Sprache/Langue d'installation:** Select the language for the installation process. You can choose between the languages German (Germany), English (USA), and French (France).

Click **OK** to start the installation wizard.

- 3. Welcome screen:** This is the first screen in the installation wizard.

Click **Next** to continue.

- 4. Destination folder:**



Due to the security model of Microsoft Corporation related to .NET applications, the installation of IPEmotion PlugIn CANSend on a local drive is recommended.



According to the Microsoft conformance guidelines for Windows applications the files are installed to the default locations that are specific to the operating system and language.

Accept the default installation location for IPEmotion PlugIn CANSend. To select another location click **Change**.

After you have specified the location for the installation, click **OK** to return to the **Destination folder** screen.

Click **Next** to continue.

5. Ready to install the program: This screen indicates that IPEmotion PlugIn CANSend is ready to install.

Click **Install** to start the installation.

6. Installing: A progress bar is shown during the installation process.

7. InstallShield Wizard Completed: After the successful installation, the following screen is shown.

Click **Finish** to exit the installation wizard.

4.3 Uninstalling IPEmotion PlugIn CANSend

The following chapter shows the deinstallation process of IPEmotion PlugIn CANSend.

For removing IPEmotion PlugIn CANSend you have two possibilities:

 With the option **Remove** of the installation program.

 The option **Add or Remove Programs** for IPEmotion PlugIn CANSend in the Control Panel.

With both methods you can remove files, folders and registry entries from your computer, which has been created during the installation.

Removing IPEmotion PlugIn CANSend with the installation program

To do so, proceed as follows:

1. Click in the menu **Start** on your computer on **Settings** and then **Control Panel**.
2. Double-click in the **Control Panel** on **Add or Remove Programs**.
3. Select from the program list the entry **IPEmotion PlugIn CANSend** and click **Change** to start the installation wizard.

Click **Next** to advance to the **Program maintenance** screen.

4. Program maintenance: This screen allows you to modify, repair or remove IPEmotion PlugIn CANSend. Select **Remove** and click **Next** to continue.

5. Remove the program: This screen indicates that your installation is now ready to remove. Click **Remove** to start the removing process.

6. Uninstalling: A progress bar is shown during the uninstalling process.

7. InstallShield Wizard Completed: This screen is shown after the successful deinstallation. Click **Finish** to exit the installation wizard.

After removal, IPEmotion PlugIn CANSend is no longer indicated in the program list.

Removing IPEmotion PlugIn CANSend with the deinstallation function of the Control Panel

To do so, proceed as follows:

1. Click in the menu **Start** on your computer on **Settings** and then **Control Panel**.
2. Double-click in the **Control Panel** on **Add or Remove Programs**.
3. Select from the program list the entry **IPEmotion PlugIn CANSend** and click **Remove** to start the installation wizard.
4. Click **Yes** to start the deinstallation.
5. A progress bar is shown during the uninstalling process.

After the successful removal of IPEmotion PlugIn CANSend, the program has been removed from your computer and is no longer indicated in the program list.

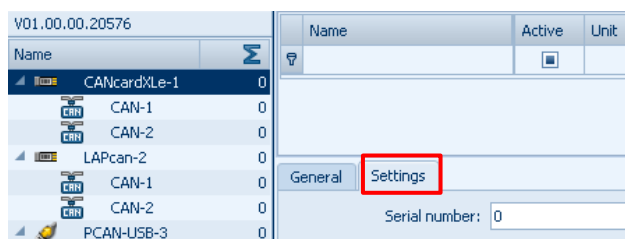
5 Working with IPEmotion PlugIn CANSend

The following chapter offers an overview of the available commands and their functions. In addition, it is shown how to use the CAN hardware and the IPEmotion software for configuring and acquiring data, as well as, managing and analyzing the acquired data.


5.1 Defining general settings

The main navigation tab **Signals** contains all available and connected systems with the respective CAN inputs. Click on the button *Add system* to expand the configuration by further systems.


Using the automatic hardware detection, all CAN systems with the corresponding CAN inputs are automatically added to the configuration.



To define the general settings for the **system properties**, proceed as follows:



Please find detailed information about the functionality and meaning of the following IPEmotion parameters in the IPETRONIK documentation IPEmotion: General.

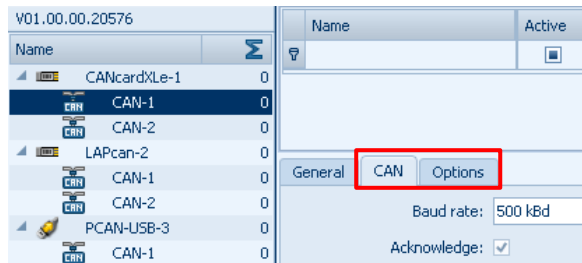
 Select in the left tree view the desired system. You can find the **Settings** tab in the window of the configuration dialog. You can set the following definition:

 **Serial number**


The serial number is mandatory for detecting, using, and distinguishing the hardware from others within IPEmotion.

Using the synchronization, all CAN systems that are not yet included in the configuration are added to the configuration with the corresponding interfaces. Those CAN systems that are in the configuration and that are not available are defined with the error status.


5.2 Defining CAN inputs



To define the general settings for the **CAN inputs**, proceed as follows:



Please find detailed information about the functionality and meaning of the following IPEmotion parameters in the IPETRONIK documentation IPEmotion: General.


 Select in the left tree view the desired CAN input. You can find the **CAN** tab in the window of the configuration dialog. You have the ability to select the following properties:

 **Baud rate**

The baud rate defines the transfer rate, which is valid for all system devices, for communicating to the devices.

 **Acknowledge**

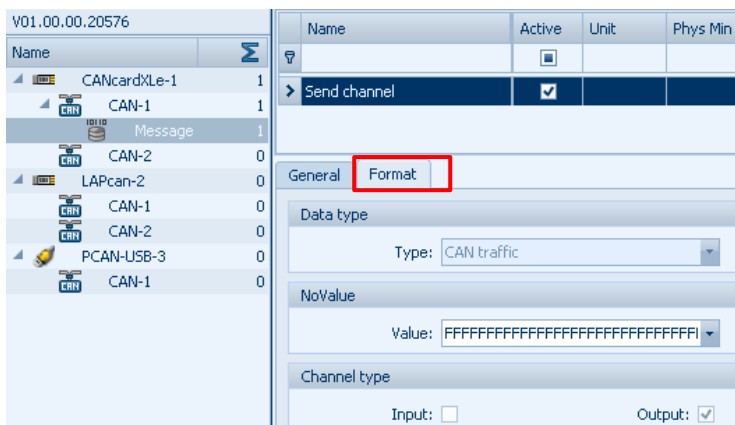
The Acknowledge function (confirmation of the reception of a correct CAN message) is activated by default and should not be deactivated.

 Within the **Options** tab, activate or deactivate the use of the baud rate at the interface initialization.

5.2.1 Defining components

To add a message and configure the send channel, proceed as follows:

 Select the CAN interface and select **Add components**  and the **Message**  entry.



The **Send channel** in the **Format** tab offers the following definitions:

- Data type (predefined)

- NoValue

Define the value to be shown if the value is invalid.

- Channel type (the use of the channel as an output is predefined)

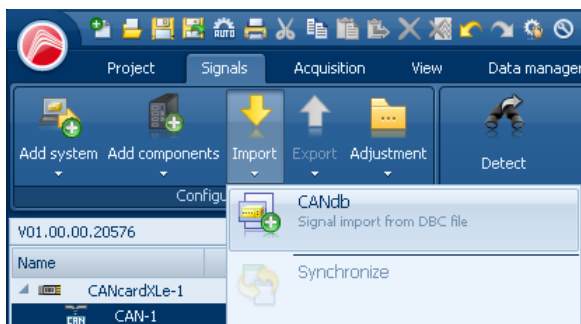
You can also send event-driven standard and extended messages, which include the complete message data (CAN-ID, DLC, Data).

5.2.2 The import function


Using the function Import, you have the possibility to read description files for the configuration of an acquisition. By doing so, vehicle data like air conditioning or seat adjusting for example are imported with the format CANdb.


To use the function Import, proceed as follows:

Select the CAN input and click on the button **Import** . Select importing from a **CANdb file** .



The dialog window **Open file** will be initialized.

 Select the desired file (*.dbc) with the channels to be imported.

 Using the **Open** button, the description file will be imported and all included channels are listed in the left overview of the dialog window **CANdb import**.

 Select the desired channels or click **Select all**. Confirm your selection with **OK**. The imported channels are listed.

