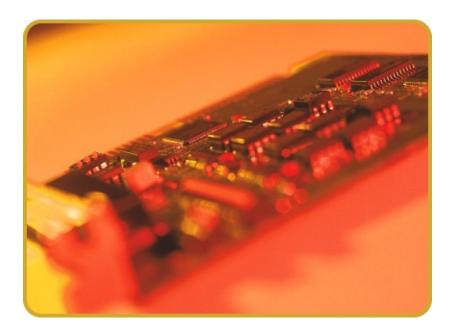
# **Kvaser Hardware**



**Kvaser Hardware** is a software tool intended for use with all installed Kvaser hardware as well as the Kvaser Virtual CAN Bus. Its main purpose is to provide an easy overview of the Kvaser Hardware and channels

#### **Overview**

The application is divided into six main sections (tabs):

Devices A list of currently available hardware and the

software licenses on the hardware.

Channel Info Provides additional information about the channels

as well as the ability to assign applications to them.

Synchronization Provides information about synchronized hardware.

Diagnostics Driver Diagnostics log
Global Settings Different global options
About Informational section

Each section contains vital information and options for any piece of Kvaser hardware.

## **Quick Keys**

There are a few quick command keys that can be used while using Kvaser Hardware,

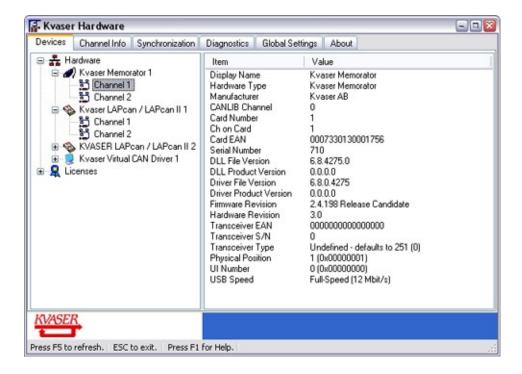
these might come in handy at times and are:

- F1 Bring up this help document
- F5 Refresh the current view
- ESC Exit Kvaser Hardware

It is also possible to click the right mouse button almost anywhere in Kvaser Hardware to copy the selected information to the clipboard in order to save it in a document or perhaps provide the Kvaser Support with some valuable information for troubleshooting.



# **Devices Section**



This section provides a list of all Kvaser hardware that is currently available in the computer. If the device has any software licenses they can also be seen here.

#### **Hardware**

A node under 'Hardware' in the list represents a unique device and contains sub-units equal to the number of channels connected to that device. By clicking an a device channel additional information can be seen to the right. For example Serial number, firmware revision, EAN number and much more.

#### **Software licenses**

The license part of the list provides a complete list of all different available licenses on all hardware. It is also possible to view the licenses

currently available on a single piece of hardware by selecting one of the devices in the tree view.

The software licensing information is vendor specific. Presently, only licensing information about tools from Vector Informatik can be displayed.

#### Locating a particular device

Right-click on a device and select **Locate Hardware**. This will cause the device its LEDs for a couple of seconds. **Note**: This operation is supported by members of the Kvaser Leaf family, and Kvaser Memorator and USBcan II.

#### **Hardware Problems**

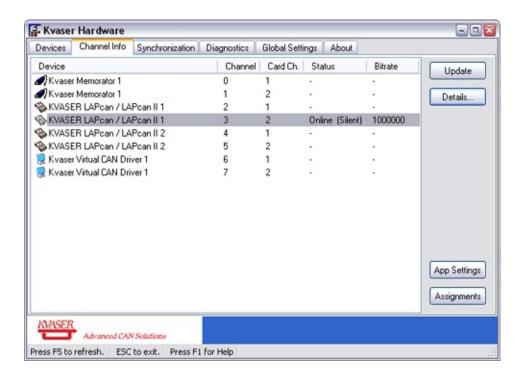
If there is a yellow exclamation mark in the device icon (see below) the device is not working properly. This can happen for a number of reasons. By clicking the device a description of the problem will appear to the right. Another place to look what went wrong might be on the Diagnostics section.



See also: Overview
Channel Info
Synchronization
Diagnostics
Global Settings
About



# **Channel Info Section**



This section displays a list of all available channels:

| Device  | The name of the device for a specific channel.   |
|---------|--|
| Channe  | This column displays the public number of the channel, needed for use with for instance CANLIB SDK.  |
| Card Ch | If there are several channels for the same hardware, this column may be used in order to clarify the physical position of a channel.                                       |
| Status  | Here the current bus status of a channel is displayed. If a channel goes on bus, "Online" will be displayed. If the channel is in silent mode that will also be indicated. |
| Bitrate | If a channel is online, the current bus speed will be shown here in bit/s.   |

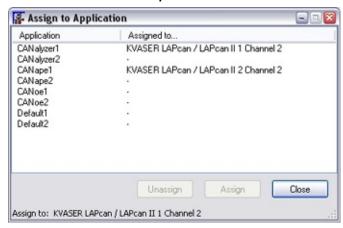
#### **Details**

When a channel is online, the Details button is activated. Pressing this button will display a small collection of information, such as:

- Bitrate
- Bus Driver Mode
- SJW (Synchronization Jump Width)
- TSeg1 (Time Segment 1)
- TSeg2 (Time Segment 2)
- Samples
- Bus Status

## **Applications & Assignments**

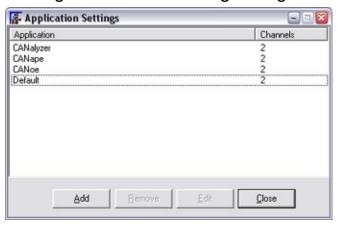
Certain applications such as Vector Informatik's CANalyzer™ need one or more **channel assignments** to be done before they work properly. With the buttons **App Settings** and **Assignments** it is possible to assign channels to such applications. The **App Settings** button allows for editing the applications and the amount of channels that can be assigned to them. It is also possible to add custom made applications.



To assign a channel to an application,

- 1. Select a channel in the list and press the **Assignments** button for a complete list of available applications.
- 2. Mark the channel to use and press **Assign** button or double click on it. To remove an assignment, press the **Unassign** button.

**To add, remove or edit the applications,** press the button "App Settings" and the following dialog will be opened.



Press the **Add** button. The following dialog is shown. Enter the name of the application and the desired number of channels.



Then press OK.

See also: Overview

Devices

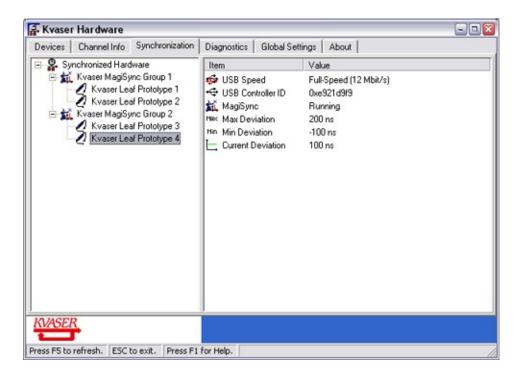
Synchronization

**Diagnostics** 

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# **Synchronization Section**



This section provides information about the synchronization of the hardware.

### Kvaser MagiSync™

The patented Kvaser MagiSync technology provides synchronization between devices supporting Kvaser MagiSync. The synchronized hardware will share the same clock. For this to work the devices will have to be in the same Kvaser MagiSync Group (that is, they must be connected to the same USB *root hub*). If they are not they will not be synchronized. The tree view to the left will show which Kvaser MagiSync Group the devices belong to.

An easy way to locate the hardware in a Kvaser MagiSync Group is to right click on a group and select **Locate Hardware**. This will cause the devices in a group to flash their LEDs for a couple of seconds. To locate

a single device, click on the device and select **Locate Hardware**.

**Note**: in Windows 98, the detection of the different MagiSync groups does not work due to a limitation in Windows 98. The detection does work in Windows 98 Second Edition.

### **Kvaser MagiSync Info**

By clicking a device in the tree view some device information will be displayed to the right.

- USB Speed shows whether the device is running in USB Full Speed (12 Mbit/s) or USB HiSpeed (480 Mbit/s).
- **USB Controller Id** displays a hexadecimal number which is the "signature" of the USB root hub. All devices in a Kvaser MagiSync group must be connected to the same root hub.
- MagiSync is "Running" if Kvaser MagiSync is running on the selected channel.
- Max Deviation, Min Deviation and Current Deviation displays some measurement statistics about Kvaser MagiSync.

See also: Overview

Devices

**Channel Info** 

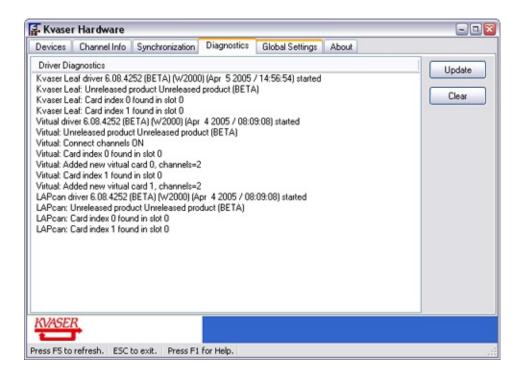
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# **Diagnostics Section**



The Diagnostics section displays a list of log messages from different Kvaser devices. For example, when a device is inserted a few diagnostic messages will be generated.

Error messages might appear here and can be useful to troubleshoot problems. Error messages are always clearly labeled as such.

Pressing the **Update** button will bring the log up to date.

Use the **Clear** button to clear all current messages.

To copy the list of messages to the clipboard (e.g. for later inclusion in an email), right-click in the message list.

See also: Overview

**Devices** 

Channel Info Synchronization Global Settings About



# **Global Settings Section**



The Global Settings section holds different general settings that are not specifically hardware oriented, such as application options.

### **Disable all Sounds**

The "Disable all Sounds" option enables/disables all devices sounds.

#### Disable automatic sounds on driver events

The "Disable automatic sounds on driver events" enables/disables the automatic sounds.

### **Enable old-style time syncfor LAPcan**

The "Enable old-style time syncfor LAPcan" enables/disables the old style timesync for Kvaser LAPcan cards.

NOTE: This will not affect MagiSync.

### **Kvaser Leaf Settings**

The button "Settings..." opens a dialog like the one shown below. It is possible to change the cpu load for each leaf.

To set all units to use the same cpu load simply mark the leaf with desired value and press "Set All" button. "Restore Defaults" sets all selected units to default value 6.



See also: Overview

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## **Tools Section**

The Tools section allows you to start various other tools to setup, troubleshoot or maintain your Kvaser Hardware.

**Setup a Kvaser Remote Device** This button starts a program that can set or retrieve various parameters in a Kvaser Remote Device.

#### **Select Kvaser Remote Device from the network**

This button starts a program with which you can list the available Kvaser Remote Device devices on the network, and select which one to use.

#### **Network Enumeration Service**

Use the buttons to start or stop the network enumeration service (which is used only together with Kvaser Remote Device). You can also set the service to automatic or manual start. If you intend to use one or more Kvaser Remote Devices, it is recommended to let the service start automatically.

See also: Overview

**Devices** 

Channel Info

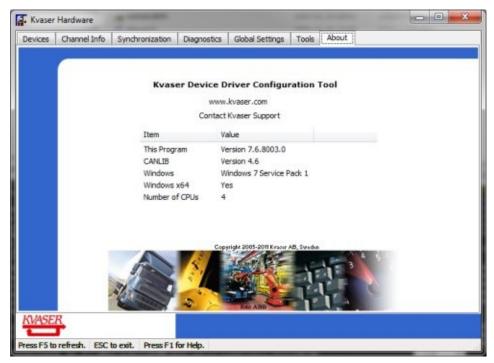
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# **About Section**



This is a small section with information about different software versions and information regarding the system.

You can right-click in the list to copy it to the clipboard.

There are also two links in this section, one of them points to our website www.kvaser.com and the other to Kvaser Support e-mail. Please do not hesitate to contact Kvaser support if you have any questions.

See also: Overview

**Devices** 

**Channel Info** 

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