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1 About this document

This is the user documentation for DEWESoft™ OBDII - CAN Plugin Version 1.3.2.

1.1 Legend

The following symbols and formats will be used throughout the document.

<p>IMPORTANT</p> 	<p>Gives you an important information about a subject. Please read carefully!</p>
<p>HINT</p> 	<p>Gives you a hint or provides additional information about a subject.</p>
<p>EXAMPLE</p> 	<p>Gives you an example of a specific subject.</p>

Example	Meaning	Description
Cancel	Button	a button that you can click
<i>File</i>	Menu Item	a menu item, will open a sub menu or a dialog
<i>Times New Roman</i>	List Item	an item in a list (or tree) that you can select
Events	Tab Sheet	a tab sheet that you can select
C:\Program Files\OpenOffice.org 3\readme.txt	File Path and Name	a file name or path
<i>Windows Key</i>	a term	any kind of term (maybe also compound)

Table 1: Layout formats used in the documentation

1.2 Links



DEWESoft™ homepage

<http://www.dewesoft.com>

you can download DEWESoft™ plugins when you go to: [Downloads](#) - [Plugins](#)

1.3 Compatibility

The plugin is compatible with DEWESoft™ 7.1 and DEWESoft™ X.

1.4 Files and Directories

The actual location of the directories on your computer may vary dependant on your computer's locale settings and the settings you chose when installing DEWESoft™.

1.4.1 Important DEWESoft™ 7 Directories

1.4.1.1 DEWESoft™ Measurement Unit [recommended]

Directory name	Explanation	Default path
Bin	contains DEWESoft.exe	D:\DEWESoft7\Bin\V7_0
Addons	.dll files for plugins must be copied into this directory	D:\DEWESoft7\Bin\V7_0\Addons
Data	this is where DEWESoft™ will store your measurement data	D:\DEWESoft7\Data
Setups	this is where your DEWESoft™ setup files will be stored	D:\DEWESoft7\Setups
System	this is where DEWESoft™ project files are stored	D:\DEWESoft7\System\V7_0
Log	this is where DEWESoft™ will store log files	D:\DEWESoft7\System\V7_0\Logs

1.4.1.2 Windows Standard

Directory name	Default path
Bin	language dependant directory: C:\ProgramFiles\DEWESoft7\Bin\V7_0
Addons	language dependant directory: C:\ProgramFiles\DEWESoft7\Bin\V7_0\Addons
Data	user/language dependant directory: C:\Dokumente und Einstellungen\All Users\Dokumente\DEWESoft7\Data
Setups	user/language dependant directory: C:\Dokumente und Einstellungen\All Users\Dokumente\DEWESoft7\Setups
System	user/language dependant directory: C:\Dokumente und Einstellungen\All Users\Dokumente\DEWESoft7\System\V7_0
Log	user/language dependant directory: C:\Dokumente und Einstellungen\All Users\Dokumente\DEWESoft7\System\V7_0\Logs

1.5 Licensing

A valid license for DEWESoft™ is of course required.

To test the plugin you can use an *Evaluation license*.

1.5.1 Requesting an Evaluation license

You can request an an *Evaluation license* from our homepage: <http://www.dewesoft.com/registration>

Evaluation license

To receive a fully functional 30-day evaluation license for Dewesoft software fill and submit the form below. Data marked with * is required. Please provide valid email address where we can send you the evaluation license.

Illustration 1: Request Evaluation License

- (1) Click on Evaluation license
- (2) Fill out all the required fields
- (3) Click the **Request license** button

1.5.2 Activating the Evaluation license

When you have received your trial licence key, open DEWESoft™, go to **Settings - Hardware Setup...**, select the **Registration** tab sheet and enter the license code (if you already have other licenses, you may need to click the **Create** button).

Now enter the license code and click the **Register online** button.

Then your new license key will show up in the list and should have the *Status Valid*.

Illustration 2: Enter license key

Used	License key	Software version and options	Status
✓	DW7-R8MA-8FD9-DC81	TRIAL	Valid

Illustration 3: Valid trial license

1.6 Plug-in Installation

Simply copy the file `.dll` into the `Addons` folder of your DEWESoft™ installation. (e.g. `D:\DEWESoft7\Bin\V7_0\Addons\`) and then start DEWESoft™).

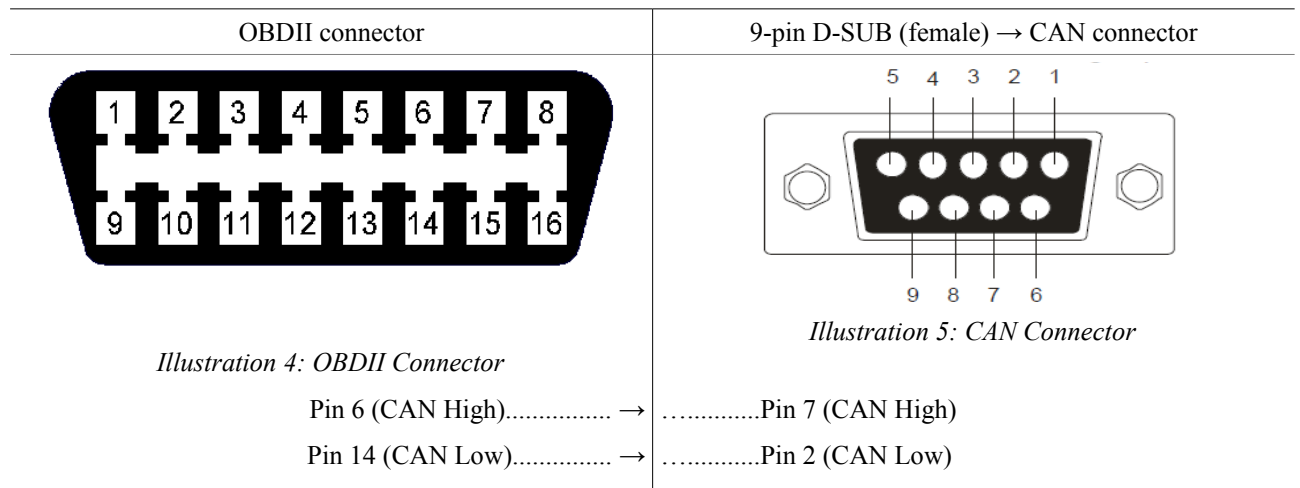
HINT



When you are using Windows® 7, then you must click the **Register plugins** button (at the bottom of the Hardware setup dialogue) once and restart DEWESoft™ before the plugin shows up in the list of available plugins.

2 Connection

A special cable needs to be made or purchased with the OBDII connector on one side and a CAN connector on the other side.



It's recommended to terminate the connection with 120 Ohm resistor on the CAN bus side (place it between Pin 2 & 7).



Illustration 6: OBDII Cable

On the other side it is possible to use Sirius, DEWE-43 or DS-CAN2 and connect the unit straight to the laptop over the USB.

This solution works only on the vehicles which has CAN bus as physical layer on the OBDII implementation. Generally all the vehicles after 2006 have this interface.

Location of the OBDII is different from vehicle to vehicle. The best way is to search it in instruction manual or on the internet. But usually it's located under steering wheel or in the middle console (it has to be close to the driver working area)

3 Configuration

3.1 Hardware Setup

In Settings → Hardware setup → CAN select DEWESoft USB. Then on the connected CAN select Acknowledge mode and Special device: OBD2

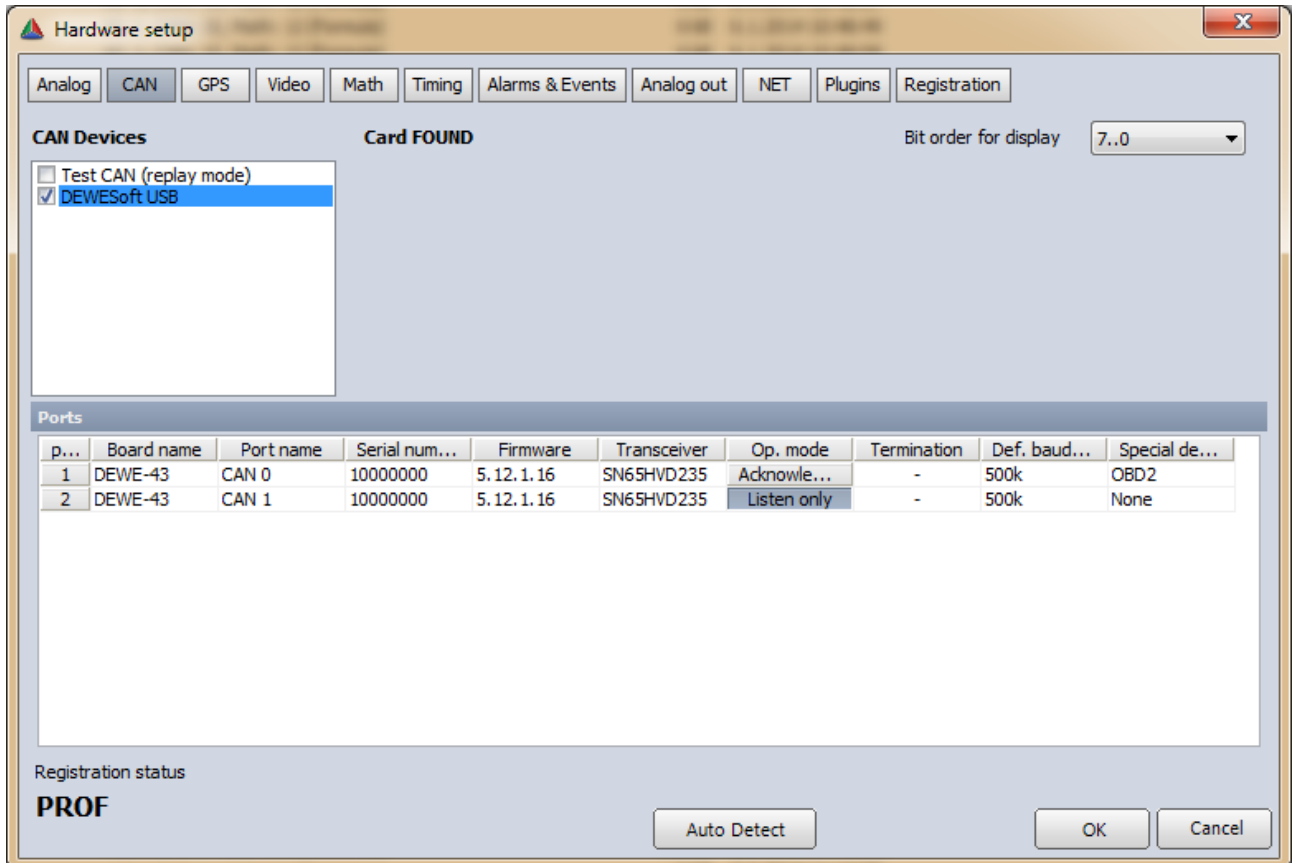


Illustration 7: Hardware setup

3.2 Channel Setup

1. After completing the step in Hardware setup, you have to go into Ch. Setup.
2. Click on a CAN channel, on which OBDII is connected. Then a screen similar to Illustration8 appears.

ID	REQUEST MESSAGE	RESPONSE	ON/OFF	NAME	DESCRIPTION	VALUE	SAMPLE RATE [Hz]	SETUP
0	\$07DF - 020100	\$07EB - 4100...	Unused	PID ID		-1740922861	3,1	Setup
1	\$07DF - 020101	\$07EB - 4101...	Unused	Trouble codes		976896	1,8	Setup
2	\$07DF - 020102	\$07EB - 4102...	N/A	Freeze frame trouble codes		N/A	0,4	Setup
3	\$07DF - 020103	\$07EB - 4103...	N/A	Fuel system status		N/A	0,4	Setup
4	\$07DF - 020104	\$07EB - 4104...	Unused	Load value		28,016101	[%]	0,4
5	\$07DF - 020105	\$07EB - 4105...	Unused	Coolant temperature		60	[deg. C]	0,4
6	\$07DF - 020106	\$07EB - 4106...	N/A	Short term fuel trim B1		N/A	0,4	Setup
7	\$07DF - 020107	\$07EB - 4107...	N/A	Long term fuel trim B1		N/A	0,4	Setup
8	\$07DF - 020108	\$07EB - 4108...	N/A	Short term fuel trim B2		N/A	0,4	Setup
9	\$07DF - 020109	\$07EB - 4109...	N/A	Long term fuel trim B2		N/A	0,4	Setup
10	\$07DF - 02010A	\$07EB - 410A...	N/A	Fuel pressure		N/A	0,4	Setup
11	\$07DF - 02010B	\$07EB - 410B...	Unused	Intake manifold pressure		100	[kPa]	0,4
12	\$07DF - 02010C	\$07EB - 410C...	Unused	Engine RPM		900	[RPM]	12
13	\$07DF - 02010D	\$07EB - 410D...	Unused	Vehicle speed		0	[km/h]	6
14	\$07DF - 02010E	\$07EB - 410E...	N/A	Timing advance		N/A	0,8	Setup
15	\$07DF - 02010F	\$07EB - 410F...	Unused	Intake air temperature		12	[deg. C]	0,4
16	\$07DF - 020110	\$07EB - 4110...	Unused	Maf air flow		10,63	[g/msec]	0,4
17	\$07DF - 020111	\$07EB - 4111...	Unused	Absolute throttle position		83,930799	[%]	0,4
18	\$07DF - 020112	\$07EB - 4112...	N/A	Sec. air status		N/A	0,4	Setup
19	\$07DF - 020113	\$07EB - 4113...	Unused	Oxygen sensor locations		1		0,4
20	\$07DF - 020114	\$07EB - 4114...	N/A	Oxygen sensor voltage B1S1		N/A	0,4	Setup
21	\$07DF - 020115	\$07EB - 4115...	N/A	Oxygen sensor voltage B1S2		N/A	0,4	Setup
22	\$07DF - 020116	\$07EB - 4116...	N/A	Oxygen sensor voltage B1S3		N/A	0,4	Setup
23	\$07DF - 020117	\$07EB - 4117...	N/A	Oxygen sensor voltage B1S4		N/A	0,4	Setup
24	\$07DF - 020118	\$07EB - 4118...	N/A	Oxygen sensor voltage B2S1		N/A	0,4	Setup
25	\$07DF - 020119	\$07EB - 4119...	N/A	Oxygen sensor voltage B2S2		N/A	0,4	Setup
26	\$07DF - 02011A	\$07EB - 411A...	N/A	Oxygen sensor voltage B2S3		N/A	0,4	Setup
27	\$07DF - 02011B	\$07EB - 411B...	N/A	Oxygen sensor voltage B2S4		N/A	0,4	Setup
28	\$07DF - 02011C	\$07EB - 411C...	Unused	Design OBD requirements		6		0,4
29	\$07DF - 02011D	\$07EB - 411D...	N/A	Alternate Oxy sensor location		N/A	0,4	Setup
30	\$07DF - 02011E	\$07EB - 411E...	N/A	Auxiliary input status		N/A	0,4	Setup
31	\$07DF - 02011F	\$07EB - 411F...	Unused	Reserved		0		0,4
32	\$07DF - 020120	\$07EB - 4120...	Unused	J2190 PDI support		-1340497819		0,4

Illustration 8: Channel setup

- **ON/OFF**: only channels that are set to **Used** will show up in *Measure Mode* and can be stored in DEWESoft™ data files. When you click on the header cell (labelled: 'ON/OFF') a pop-up menu will appear and you can set all channels to used/unused at once.
 - **Color**: this colour will be used by the displays in *Measure Mode*. You can click on the colour to change it.
 - **Name**: the name of the channel that will be used in *Measure Mode*. This can be changed by the user.
 - **Description**: it can be used to write a short note.
 - **Value**: shows the live values of this channel
 - **Sample rate**: shows current sample rate in Herz
3. The next step is to simply go in Measure mode, design a measure screen and store the data.

4 Version History

4.1 Plugin Version

Plugin-Version	Date [dd.mm.yy]	Notes
1.3.2	04.02.14	initial revision

4.2 Documentation Version

Revision number: 10

Last modified: Tue 04 Feb 2014, 09:24

Doc-Version	Date [dd.mm.yy]	Notes
1.0.0	04.02.14	initial revision for plugin version 1.3.2