

CANopen-Interface Driver for PCANLight-Dongle

Installation Guidelines

Version 2.0

Vector Informatik GmbH, Ingersheimer Str. 24, D-70499 Stuttgart
Tel. +49 711 80670-0, Fax +49 711 80670-349, www.vector-informatik.com

Contents

1	Introduction	1
2	Installation	2
2.1	PCAN-Light Driver	2
2.1.1	Installation.....	2
2.1.2	Test.....	2
2.2	CANopen Driver Interface	3
2.2.1	Installation.....	3
2.2.2	Settings.....	3
3	Trademarks.....	6

1 Introduction

The PCAN-Dongle of Peak-System allows connecting a CAN-bus to the parallel interface of an IBM compatible PC. It supports the CAN-specification 2.0A (11-bit ID) and 2.0B (29-bit ID).

With this interface driver "cpdrv32.dll" Vector CANopen-Tools such as ProCANopen, CANsetter or the CANopen-Master-Dll get access to the PCAN -Dongle. The interface driver works with the light version of the PCAN-Dongle driver.

The light version of the PCAN-Dongle driver supports only PCAN-Dongles having the SJA1000 controller. Older dongles with the Phillips 82C200 controller are not supported.

Note: Only one software may have access to the port of the PCAN-Dongle !

2 Installation

2.1 PCAN-Light Driver

You can get the driver from the disk added to the dongle or from the homepage of Peak-System (www.peak-system.com).

PLEASE PAY ATTENTION TO CHANGES IN THE INSTALLATION GUIDELINES BY PEAK-SYSTEM !

2.1.1 Installation

Win9x/ME:

- Copy the device driver "pcan_dng.vxd" to the "Windows\System" directory
- Start the "pcan_dng_Win95.reg" file (make all registry entry)
- Reboot the system

WinNT4(SP6):

- Copy the device driver "pcan_dng.sys" to the "Winnt\System32\Drivers" directory
- Start the "pcan_dng_NT.reg" file (make all registry entry)
- Reboot the system
-

Win2000(SP1):

- Please note that the version of the device driver "pcan_dng.sys" have to be 2.30 or higher.
- Copy the device driver "pcan_dng.sys" to the "Windows\System32\Drivers" directory
- Start the "pcan_dng_NT.reg" file (make all registry entry)
- Set the properties of the parallel port to "use every interrupt assigned to the port" (see 'System control → System → Hardware → Device manager → LPT1 → Properties → Port properties').
- Reboot the system

2.1.2 Test

To test the correct installation of the driver the tool PCAN-View for Windows is recommend. It is on the attached disk or can be downloaded from the homepage of Peak-System (www.peak-system.com).

The hardware of the CAN-dongle need no configuration. Only the IO-Port and the interrupt of the parallel-interface is necessary. The following table displays some typical values.

Port Address	Interrupt
LPT1 378	IRQ7
LPT2 278	IRQ5

Table 1 Examples of the standard part address and the associated interrupt

Start PCAN-View and select your hardware and the associated port address and interrupt. Now you can communicate with another CAN-tool by sending and receiving messages.

2.2 CANopen Driver Interface

2.2.1 Installation

2.2.1.1 ProCANopen / CANsetter

To install the CANopen-interface you have to copy the interface driver "cpdrv32.dll" and the device driver "PCAN_DNG.dll" to the "pc\exec" directory.

Starting with Version 3.1 of ProCANopen/CANsetter you have to select this DLL in the menu "Options | Environment | CAN Hardware".

2.2.1.2 CANopen-Master

To install the CANopen-interface you have to copy the interface driver "cpdrv32.dll" and the device driver "PCAN_DNG.dll" to the directory where the CANopen-Master Dll is located.

2.2.2 Settings

Some settings are necessary to initialize the dongle correctly.

In the file "candrv.ini" in the "Winnt" or "Windows" directory you have to add the following lines:

```
[PCANLightDongle]
Baudrate=
HWType=
IO_Port=
Interrupt=
MsgType =
```

Now you have to add the correct values für each entry. The tables below contain the possible values with a short discription:

Baudrate	1000	1Mbit/s
	500	500 kbit/s
	250	250 kbit/s
	125	125 kbit/s (default)
	100	100 kbit/s
	50	50 kbit/s
	20	20 kbit/s
	10	10 kbit/s
	5	5 kbit/s

HWType	HW_DONGLE_SJA	SJA 1000 Dongle (default)
	HW_DONGLE_SJA_EPP	SJA 1000 Dongle with ECP/ EPP Parallel Port Modus

IO_Port	<i>IO-Port of parallel-interface which is connected to the dongle (decimal or hexadecimal with a leading 0x). Default: 0x378</i>
---------	--

Interrupt	<i>Interrupt of parallel-interface which is connected to the dongle (decimal or hexadecimal with a leading 0x). Default: 7</i>
-----------	--

MsgType	CAN_INIT_TYPE_ST	Standard Frame (11Bit ID, default)
	CAN_INIT_TYPE_EX	Extended Frame (11/29Bit ID)

Table 2 Possible values for entries in candrv.ini

For example:

```
[PCANLightDongle]
Baudrate=125
HWType=HW_DONGLE_SJA_EPP
IO_Port=0x378
Interrupt=7
MsgType =CAN_INIT_TYPE_EX
```

If an entry is missing, an entry has no value or an entry has an illegal value the default value is used. In the event of a illegal value a message box displays the error.

With ProCANopen and CANsetter it is possible to set the baudrate. The tool changes the value in "candrv.ini". For more information see the ProCANopen or CANsetter User's Guide. Appendix

3 Trademarks

CANopen is a registered trademark of CAN in Automation e.V.