

# EtherCAN/2 Host Driver and Firmware - Release Notes

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## About

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These are the release notes for the [EtherCAN/2](#) Firmware and Host Driver.

- Host Driver: Software on the PC that connects to the EtherCAN/2 device and offers the API etc (Under Windows this is installed with the *setup.exe*)  
Note: The Host Driver is also compatible with old EtherCAN device
- EtherCAN/2 Firmware: Software on the EtherCAN/2 device itself  
(Update is done via a special file that is uploaded on devices web page)

## Revision history

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Listed below are the improvements, changes and fixes between different releases of the EtherCAN/2 Firmware and Host Driver in reverse chronological order.

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## Host Driver

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### Host Driver V3.2.1

*Release date: 2014-09-15*

- Updated ntcandll to V4.8.5

### Host Driver V3.2.0

*Release date: 2014-07-28*

- Fixed installer error message on Win64 when used within other installer
- Updated libpsys.dll to V1.8.1
- Updated ntcandll to V4.8.3

### Host Driver V3.1.9

*Release date: 2014-04-07*

- Updated qesdcp to V0.1.8
- Fixed installer not creating registry entries for CAN control panel in some cases

## Host Driver V3.1.8

*Release date: 2014-01-30*

- WebSocket server samples updated
- Updated qesdcp to V0.1.7 and qesdcp.dll to V1.6.5
- Updated ntcn.dlls to V4.8.1
- Updated ELLSI Manual

## Host Driver V3.1.7

*Release date: 2013-12-17*

- WebSocket server samples updated
- Updated esdcp.dll to V1.6.4
- Updated Manuals

## Host Driver V3.1.6

*Release date: 2013-04-17*

- Added WebSocket server samples
- Updated Manuals
- Updated ntcn.dll to V4.8.0
- Updated calcan32/64.dll to V2.6.2

## Host Driver V3.1.5

*Release date: 2012-08-29*

- Updated calcan32/64.dll to V2.6.1

## Host Driver V3.1.4

*Release date: 2012-08-28*

- Updated ntcneth.dll to V2.4.0.2  
Feature flags updated  
Added support for some more IOCTLs, e.g. IOCTL\_GET\_BUS\_STATISTIC
- Updated ntcn.dll to V4.6.3
- Updated calcan32/64.dll to V2.6.0

## Host Driver V3.1.3

*Release date: 2012-07-16*

- Updated ntcneth.dll to V2.3.0.4  
Fixed interaction frames' CAN Id being masked
- Updated Manuals

## Host Driver V3.1.2

*Release date: 2012-03-15*

- Updated ntcneth.dll to V2.3.0.3  
Added support for flags NTCAN\_MODE\_NO\_INTERACTION and NTCAN\_MODE\_MARK\_INTERACTION

- Updated ntcandll to V4.6.0
- Updated calcan32/64.dll to V2.5.7

## Host Driver V3.1.1

*Release date: 2011-06-14*

- Installer updated  
Installs 64 bit versions of calcan.dll, libsys.dll, libntcan.dll and ntcane.dll on 64 bit systems
- Updated ntcandll to V4.5.0

## Host Driver V3.1.0

*Release date: 2010-05-18*

- Manuals updated  
EtherCAN/2 manual V1.3  
EtherCAN/2 manual V1.3 (German)  
ELLSI manual V1.5
- Host Driver also as .zip  
Without ntcandll driver, e.g. for none-Windows users
- Updated ntcane.dll to V2.1.0.30  
Improved TX Performance for EtherCAN/2 when using *canWrite()/canSend()* with *cmsg* count greater than 1
- ELLSI updates  
Reformatted examples  
Included Wireshark plugin for ELLSI protocol
- Improved support for UPnP (Windows Vista and above)  
Individual icon and context menu for EtherCAN/2 as UPnP device in *Other Devices* of Windows network browser
- Updated canctrl.cpl to V1.5.0  
Replaced CPL version of CAN Control Panel with Windows Vista/7 UAC aware executable which requires elevated rights for configuration  
Fixed bug with phantom devices exist after the change of the logical net number
- Updated QT esdcp frontend to V0.1.6
- Updated ntcandll to V4.3.1.0
- Updated calcan32.dll to V 2.5.3.0

## Host Driver V3.0.0

*Release date: 2009-09-21*

- Common setup for EtherCAN/2 and EtherCAN interface  
EtherCAN/2 manual V1.0 (German)  
Installs optionally SNMP MIB file
- Changed installer from InstallShield to InnoSetup
- Update ntcane.dll to V2.1.0.25  
Fixed bug detecting lost frames (V2.1.0.25)  
Increase maximum allowed size of Tx/Rx handle queue size from 2047 to 16384 (V2.1.0.24)  
Increased maximum number of supported interfaces for 20 to 100 (V2.1.0.23)  
Fixed IDs of CAN events always set to 0 (V2.1.0.22)  
Fixed *canClose()* even returns on success with *NTCAN\_INVALID\_HANDLE* (V2.1.0.21)  
Added dummy support for *canGetOverlappedResult()* and *canGetOverlappedResultT()* (V2.1.0.20)  
Improved performance of *canOpen()* (V2.1.0.20)

- Fixed rare `canClose()` cleanup issue (V2.1.0.20)
- Internal optimizations (V2.1.0.20 - V2.1.0.25)
- Updated `libpsys.dll` to V1.7.3.0
- Updated `ntcan.dll` to V4.2.7.0
- Updated `calcan32.dll` to V2.4.4.0
- Updated `canopl.cpl` to V1.4.3.0
- Updated QT ESDCP front end to V0.1.5
- Display truncated device name instead of *Unknown* if device name is too long
- Support for ESDCP extended options

## Host Driver V2.2.0

*Release date: 2008-05-14*

- Update `ntcaneth.dll` to V 2.1.0.19
- Support for the IOCTLs `NTCAN_IOCTL_GET_RX_MSG_COUNT` and `NTCAN_IOCTL_FLUSH_RX_FIFO` (V2.1.19)
- Calls for unsupported functionality now returns `NTCAN_NOT_IMPLEMENTED` (V2.1.18)
- A call of `canloctl()` with an unsupported IOCTL command return `NTCAN_INVALID_PARAMETER` (V2.1.18)
- Fixed `canWrite()` returning `NTCAN_TX_TIMEOUT`, even if all CAN messages are sent (V2.1.17)
- Minor internal changes (V2.1.10 - V2.1.16)
- Updated `libpsys.dll` to V1.7.0.0
- Updated `ntcan.dll` to V4.1.1.0
- Updated `calcan32.dll` to V2.4.2.0

## Host Driver V2.1.0

*Release date: 2007-04-16*

- Installer and shared libraries/executables are now digitally signed
- Update `ntcaneth.dll` to V2.1.0.9
- Once again improved reconnect time (V2.1.0.9)
- Fixed possible endless loop returning in rare situations after connect/reconnect (V2.1.0.8)
- Overall performance improvement (V2.1.0.6)
- Implemented `canClose()` immediately kills active reconnect instead returning after next reconnect timeout (V2.1.0.6)
- Keep alive mechanism completely revised and improved (V2.1.0.6)
- NTCAN API calls return `NTCAN_WRONG_DEVICE_STATE` during reconnect phase (V2.1.0.6)
- Increased maximum number of handles from 127 to 511 (V2.1.0.6)
- Fixed opening more than the maximum number of possible CAN handles caused all other handles to be closed (V2.1.0.6)
- Support for aborting blocked read/write requests via `canloctl()` and performing forced close on handle (V2.1.0.5)
- Fixed bug in validation of queue size parameter in `canOpen()` (V2.1.0.4)
- Fixed bug that DLL crashed on unload in case of timeout during reconnect
- Receiver thread priority changed from Realtime to High (V2.1.0.4)
- Decreased time for reconnect (V2.1.0.3)
- Fixed unnecessary reconnects to EtherCAN modules no longer existent after `canClose()` (V2.1.0.2)
- Internal maximum number of supported EtherCAN interface increased from 5 to 20 (V2.1.0.2)
- Fixed possible race condition in DLL unload (V2.1.0.1)
- Reduced CPU time consumed by keep-alive thread (V2.1.0.0)

- Improved handling of socket errors (V2.1.0.0)
- Improved reconnect behavior (V2.1.0.0)
- Updated QT ESDCP front end to V0.1.2  
Supporting empty password to configure remote device
- Updated libpsys.dll to V1.5.0.3
- Updated ntcn.dll to V4.1.0.0
- Updated cancp.cpl to V1.4.0.1
- Updated calcan32.dll to V2.3.2.0

## Host Driver V2.0.0

*Release date: 2005-11-10*

- Support for Extreme Simple Device Configuration Protocol (ESDCP) to remotely configure network enabled ESD devices without knowledge of the IP address with Qt based ESDCP front end
- Win32 example files to use new EtherCAN Low Level Socket Interface (ELLSI) CAN I/O with UDP messages instead of using NTCAN
- Update ntcneth.dll to V2.0.0.18  
Support to configure EtherCAN server timeout  
Fixed returning error code for canClose() even if successful

## Host Driver V1.1.0

*Release date: 2005-05-03*

- Added missing support for Windows 9x/ME
- Changed setup to allow minimal install without documentation
- Update libpsys.dll to V1.5.0.0
- Update ntcn.dll to V3.2.0.0
- Update cancp.cpl to V1.4.0.0  
Added support to use more than 5 remote CAN gateways  
Added support to configure individual connection/command and keep alive timeout for each remote gateway  
Added support to choose different port

## Host Driver V1.0.0002

*Release date: 2004-11-13*

- Update libpsys.dll to V1.4.0.2
- Update ntcneth.dll to V2.0.0.15  
Additional configuration parameter stored in registry  
Fixed bug handling CAN 2.0B frames and events  
Fixed bug opening/closing handles only possible 256 times

## Host Driver V1.0.0001

*Release date: 2003-11-13*

- Update ntcneth.dll to V2.0.0.3  
Fixed bugs handle remote CAN bus errors  
Added support to get serial number of remote gateway
- Include hardware manual V1.2

# Host Driver V1.0.0000

*Release date: 2003-10-09*

- Initial release for Windows NT/2K/XP
    - cancpl.cpl V1.3.0.1
    - ntcan.dll V3.1.0.0
    - ntcaneth.dll V2.0.0.2
    - libpsys.dll V1.2.0.0
    - calcan32.dll V2.0.0.4
    - Hardware Manual V1.1
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## EtherCAN/2 Firmware

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### Firmware V4.5.0.1

*Release date: 2022-05-12*

- ELLSI update
  - The websocket server can now also deliver Mime-Type "image/svg+xml".

### Firmware V4.5.0.0

*Release date: 2020-08-25*

- Exchange of the NAND Flash
  - Adaptation to the newly used NAND Flashes
  - Note: This update is NOT backwards compatible for boards with the old NAND flash!*
- Minor fix in ELLSI
- The company name, the contact informations and the company URL, which are provided via the web interface, have been updated

### Firmware V4.4.0.4

*Release date: 2017-03-03*

- ELLSI-interaction feature request by customer

### Firmware V4.4.0.3

*Release date: 2015-12-02*

- Flash memory endurance
  - Yet another bugfix in bootloader

### Firmware V4.4.0.2

*Release date: 2015-08-18*

- Flash memory endurance
  - Bugfix in Bootloader for corrected ECC handling

## **Firmware V4.4.0.1**

*Release date: 2015-05-19*

- Flash memory endurance  
New Kernel- and Bootloader for improved ECC handling

## **Firmware V4.3.0.3**

*Release date: 2014-01-23*

- ELLSI Updates  
UDP: CAN Tx with new RegisterX flag to maximize throughput. Rx now as fast as possible and frame length checks relaxed, as in former versions  
WebSocket: Fixed idle client handling

## **Firmware V4.3.0.0**

*Release date: 2013-09-11*

- Updated update procedure for future versions

## **Firmware V4.2.0.16**

*Release date: 2013-04-22*

- WebSocket Server updated  
Page "connected clients" now includes WebSocket clients.  
Fixed issue with frame loss from server to client.  
Updated sample http files. (Using CAN timestamps, displaying relative time between frames, taking time till TXDONE, and many minor changes)  
*Note: updating Firmware from V4.2.0.15 to V4.2.0.16 will reset WebSocket server's "enabled" and "port" setting.*

## **Firmware V4.2.0.15**

*Release date: 2013-04-02*

- New Feature: WebSocket Server  
In this mode the EtherCAN/2 can be used by a web browser!

## **Firmware V4.2.0.13**

*Release date: 2012-01-15*

- New Feature: CAN TCP Client  
In this mode the EtherCAN/2 connects to a TCP server and forwards all CAN frames to it.

## **Firmware V4.2.0.12**

*Release date: 2012-08-28*

- Minor changes  
(For Host Driver V3.1.4: Feature flags/statistics support)

## Firmware V4.2.0.11

*Release date: 2012-07-16*

- Added CAN Bridge function  
Allows to create a CAN to CAN bridge with two EtherCAN/2 modules. Includes ID filtering and mapping etc.
- Remote logging  
Settings now saved  
Email content cleaned up
- Other Changes  
During boot up the four LEDs C, E, R and P are turned on for 0.5 seconds  
Local CAN driver updated to V3.9.4  
Website updated (Overview shows uptime, some texts changed, pages for CAN bridge added)

## Firmware V4.2.0.10

*Release date: 2011-01-27*

- Internal changes for new hardware rev.  
(NAND Timings)

## Firmware V4.2.0.9

*Release date: 2011-01-18*

- Internal changes for new hardware rev.  
(Data- to NAND flash)

## Firmware V4.2.0.8

*Release date: 2010-10-12*

- Internal changes for new hardware rev.  
(NAND flash access)

## Firmware V4.2.0.7

*Release date: 2010-05-06*

- Added UPnP client  
(Host Driver V3.1.0 or newer recommended)
- Serial number, hardware version and firmware version now also readable by NTCAN-API  
(See *canStatus()* and *NTCAN\_IOCTL\_GET\_SERIAL*)

## Firmware V4.2.0.6

*Release date: 2010-04-15 (internal release)*

- Now also showing connected ELLSI clients and their statistics
- Improvements for DHCP  
(e.g. Hostname now configurable and NTP-server also taken by DHCP)
- Webpage *Network Configuration* now shows actual active configuration instead of just last saved settings

## **Firmware V4.2.0.5**

*Release date: 2010-02-16*

- Minor changes for ELLSI

## **Firmware V4.2.0.3/4.2.0.4**

*Release date: 2010-02-10*

- Fixed esdcp finding the device when auto-ip was set
- Decreased time for dhcp configuration from 5 minutes to 1 minute  
(So 2 minutes until auto-ip is set)

## **Firmware V4.2.0.2**

*Release date: 2009-11-20*

- Added *20k baud mode* to allow baudrates < 50 kBit/s

## **Firmware V4.2.0.1**

*Release date: 2009-10-14*

- Improved esdcp finding the device when there was no gateway set

## **Firmware V4.2.0.0**

*Release date: 2009-10-01*

- Initial release