



## RELEASE INFORMATION

Project name		Project No
Transport Providers		7406
Software	Software version and build	Release date
Application	Version 4.2.0.1	2019-03-13

## This release contains:

- This document
- Installation Package - “Anybus Transport Providers Setup 4.2.0.1.exe”
  - Transport Provider Router – Version 3.0.0.0
  - ABS Interface – Version 3.0.0.0
  - PCI Transport Provider – Version 2.0.0.0
    - Anybus PCI Card driver - Version 6.4.1.1\_B
  - COM-Port Transport Provider – Version 2.0.0.0
  - HMS USB Device Transport Provider – Version 4.0.0.0
  - Ethernet Transport Provider – Version 3.0.0.0
    - IPconfig Version 3.2.1.1
  - Development Board 2 Transport Provider – Version 2.3.0.0
    - Development Board 2 Driver – Version 2.12.28
    - Development Board 2 VCP Driver – Version 2.12.28
  - Anybus USB-Serial Driver Version 6.7.5.1893

## How to upgrade from previous versions:

Run the installation package.

## Known limitations/bugs:

- None



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### Updated in version 4.2.0.1

#### - Other changes

- **Resigned Anybus PCI Card driver with SHA2 certificate.** Signing with SHA2 is a requirement for windows to install drivers without showing warning message about not trusted publisher. Such a warning message also prohibit silent installation of the driver. (internal ID J-A7406-130)

### Updated in version 4.2.0.0

#### - Bug fixes

- **USB Board 2 accepts any baud rates for serial paths.** When open a serial path against an USB Board 2 the transport provider will not longer reject any baud rate automatically. It will be the device connected to the USB Board 2 that will set the limit for the baud rate. The ABCC operating mode will be set to “ram loader” if the given baud rate isn’t supported by the ABCC. (HmsUsb2.dll, internal ID J-A7406-123)

### Updated in version 4.1.0.0

#### - Bug fixes

- **USB Board 2 is initialized to default config.** When a path is opened to an USB Board 2 and there are no other paths open to it, the board registers will be initialized to their default values. If an initialization fails, the “no hardware” error code is returned. (HmsUsb2.dll, internal ID J-A7406-90)
- **GetDevices() now filters out unwanted boards.** As GetDevices() now filter out unwanted boards as intended, it is no longer necessary to filter them manually after the function call – especially as the post-function filtering incorrectly removed boards that had closed parallel but opened serial paths. (HmsUsb2.dll, internal ID 0019005)
- **USB Board 2 becomes unresponsive if a process using the transport provider is killed.** Mutexes are used to determine if one or more processes are accessing the channels of the board, rather than trusting the DUT\_ON counter read from the board. (HmsUsb2.dll, internal ID J-A7406-101)
- **Race condition when closing two paths.** Resolved a race condition that could cause the Development Board 2 to not power off when closing two paths to the same USB2 board at the same time. (internal ID J-A7406-105)
- **Power off Development Board 2 when closing both serial and SPI paths.** Development Board 2 is now powered off if first opening both a serial and an SPI path, then closing both, as the DUT\_ON register is now incremented correctly. (HmsUsb2.dll, internal ID J-A7406-106)
- **Parallel command queue is flushed upon opening.** The command queue is now flushed when a parallel path is opened, before any other command is written or read from the path. (HmsUsb2.dll, internal ID J-A7406-102)
- **Updated the commands and default values supported by Development Board 2.**
- **Added support for Development Board 2 ports H and I.** (HmsUsb2.dll, internal ID J-A7406-118)

#### - Other changes

- **The minimum supported version of Windows is Windows 7.** The support for Windows 2000, Windows XP and Windows Vista is dropped. (internal ID 0019103)
- **Updated Development Board 2 Driver.** Drivers for Development Board 2 has been updated.



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### Updated in version 3.9.1.1

#### - Bug fixes

- **Fixed memory leak when failed to create new Transport Path.** Each time a new path was created from the Anybus-S API (HMSABS.dll) it allocated memory that was not released. (internal ID 0018708)

#### - Other changes

- **Updated USB Serial Driver.** Change name of device to Anybus .NET Bridge.
- **Updated Development Board 2 Driver.** Drivers for Development Board 2 has been updated.

### Updated in version 3.8.1.1

#### - Other changes

- **Updated USB Serial Driver.** Added support for Anybus .NET Gateway

### Updated in version 3.7.1.1

#### - Improved functionality

- **Added new serial transport provider type with support for HMS USB Devices.** Added new transport provider type for HMS Devices equipped with an USB to serial chip and connects to the PC using USB. When configuring this new transport provider a list of all connected HMS USB Devices are presented to choose from. (internal ID 0017161)
- **Added support for ABCC Module Shift Register board.** Added support for the ABCC Module Shift Register board both in the USB2 drivers and transport providers for COM-port and HMS USB Devices. (internal ID 0018040)

#### - Other changes

- **Updated Development Board 2 Driver.** Drivers for Development Board 2 has been updated.

### Updated in version 3.6.1.2

#### - Improved functionality

- **Improved speed for small amounts of data in Development Board 2 transport.** Changed USB parameters to improve transfer speed for small amounts of data.

#### - Bug fixes

- **Enabled silent install.** When specifying /verysilent when launching the installer, there was a dialog pop ups and ask whether or not to install IP config. This dialog will now not appear in silent mode and IP config will be installed. (internal ID 0016479)
- **Fixed problem with Hardware Reset of ABM/ABS Device on USB Development Board 2.** Sending a Reset Type 2 to an Anybus-S or Anybus-M device mounted on USB Development Board 2 failed with Error TP\_ERR\_NOT\_SUPPORTED. (internal ID 0016747)

#### - Other changes

- **Updated Development Board 2 Driver.** Drivers for Development Board 2 has been updated.



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- **Updated USB Serial Driver.** Added support for HMS-EN2MB-R.

### Updated in version 3.5.1.1

#### - Bug fixes

- **Possible to open paths when having multiple USB2 boards connected.** There was problem opening paths when there were more than one USB2 board connected to the computer. (internal ID 0013873)

### Updated in version 3.4.1.2

#### - Bug fixes

- **All paths available again.** Paths that were created before installing 3.3.1.3 wasn't always available after 3.3.1.3 was installed. (internal ID 0012916)
- **SPI/parallel paths possible to use together with a serial path with a Development Board 2.** Extended the fix in previous release, to not only support 8-bit parallel paths, but also SPI and 16-bit parallel paths. (internal ID US1855)
- **IPconfig will not be installed needlessly.** If an up to date version of IPconfig is already installed, the installer won't ask to install again. (internal ID 0013173)

### Updated in version 3.3.1.3

#### - Features

- **Added 64-bit version of Transport Provider.** 64-bit applications are now able to connect to Transport Provider using the 64-bit interface DLL. (internal ID US1296)
- **Transport Provider dialogs uses the same Icon as the current application.** The Transport Provider dialogues now uses the same icon as the application opening it. (internal ID 0011320)

#### - Bug fixes

- **Add support for opening both Serial and parallel path against Development Board 2.** Now it is possible to first open a Serial path and then also a Parallel path against Development Board 2. (internal ID US1217, 0011373)
- **Trying to configure administrator paths gave wrong error message.** When trying to configure a path with ID < 10000 without administrator rights there was an error message saying "Could not find the indicated path in the registry!" while the message should be "You don't have administrator rights to configure this path".(internal ID DE739, 0011702)
- **Alive message content swapped in Ethernet transport.** Alive message sent to X-gateway was swapped so the X-gateway timed out if no other commands was sent during timeout time. (internal ID DE740, 0012168)

### Updated in version 3.2.1.3

#### - Features

- **IPconfig 3.0.1.5 that supports SHICP-enabled devices.**
- **Driver for Ethernet Spammer added**



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- **USB support for Anybus X-gateway added**
  - **TP\_SerialReopen() added.** Allows serial paths that are already open to change their settings (like baud rate).
- Bug fixes
- **The Development Board 2 driver no longer interferes with other devices using FTDI chips** (internal ID 0010413)
  - **The “data bus size” setting for Development Board 2 paths is now always displayed properly** (was previously sometimes disabled even though it should have been possible to select 8 or 16 bit data size) (internal ID 0010322)
  - **CPU usage decreased during transport path selection** (internal ID 0010426). The CPU now stalls while waiting for user input.

### Updated in version 3.1.1.2

#### - Features

- **Development Board 2 Transport Provider added**
- **TP\_GetSupportedBaudRates() added.** Allows an application to ask for a list of supported baud rates. Other baud rates might work fine, and there is no guarantee that what is connected on the other side of the serial/SPI connection likes all the returned baud rates, but it gives a list with values that the PC side of the connection prefers.

#### - Bug fixes

- **ABS\_Reset(), ABS\_RequestArea() and ABS\_ReleaseArea() works again for Ethernet paths** (internal ID 0010295)
- **Path selection window is always displayed properly on WinXP computers.** (internal ID 0009518)

### Updated in version 3.0.1.1

#### - Features

- **Added new transport type – SPI.** The forthcoming HMS Development Board 2 can be used in SPI mode.
- **Support for Unicode path names.** Any character is allowed when naming a path, and TP\_PathNameW() has been added .
- **UI improvements**
  - Path selection window should no longer end up on top of other applications
  - Support for different DPI settings in windows
- **TP\_UserSelectPathExt() added.** An application can display a description during path selection (internal ID 0002378).
- **New application icon**

#### - Removed functionality

- **TP\_SetMinTimeout() removed.** It was an optional interface that was never implemented, so the stub for it was removed to prevent applications from trying to use it.



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### - Bug fixes

- **Start IPconfig button in Ethernet transport provider visible again** (internal ID 0009006)
- **Partial TCP send/receives now working.** The reminder of the data is no longer ignored.
- **Creation of new paths is restricted to only those types that can be selected** (i.e. it isn't possible to create a serial path if the application wants a parallel) (internal ID 0004830).
- **Improved error handling and clean-up when something goes wrong**
- **Driver installation improved.** Connected devices are now automatically refreshed after a driver is updated in the system. This should cause fewer problems with some devices using older version of a driver than is installed.

### Updated in version 2.10.1.1

- USB Driver version 6.5.3.0 from Silicon Labs is included
- New USB PID for CM CANopen added (PID 0004)

### Updated in version 2.9.1.1

- Anybus IPconfig version 1.7.1.2 included
- Installer properly uninstalls all old versions of the transport provider

### Updated in version 2.8.1.1

- USB Serial driver updated to support the new HMS vendor ID (and the product IDs for X-gateway CANopen Master, Modbus-TCP and Communicator CAN)

### Updated in version 2.7.1.1

- First 64 bit release
- Potential crash bug fixed when closing down COM interface paths.

### Updated in version 2.6.1.1

- All dll's and drivers are now signed.
- Transport paths are better managed under Windows 7.
- Updated PCI driver.
- Windows Vista and 7 won't automatically restart on shutdown anymore.  
(0003257: Impossible to turn of a PC with Windoze Vista and our Transport Provider installed.)

### Updated in version 2.5.1.1

- Updated installation package with COM-Port Transport Provider – Version 1.2.1.1
  - OS resources are better taken care of when opening and closing paths multiple times.  
(0001321: Delete the critical section used when the path is closed)
  - The program should be better at reporting which COM ports are available for use.  
(0002694: Enumeration of COM-ports could be improved)
- Updated installation package with Ethernet Transport Provider – Version 2.5.1.1
  - The default button in TP settings is now properly restoring the default latency value.



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(0004125: Initial Latency in TP settings is 250ms, default button gives 2000ms)

- All windows are now resized/scaled depending on the DPI settings for the monitor.

(0002578: Buttons disappear if font DPI set to 120)

(0004555: Ethernet Transport Settings dialog is too small. Cancel button do not fit)

- Some popup windows are now properly placed on top of previous application windows instead of being stuck behind them.

(0002579: If Ethernet TP config window is hidden behind another application window you can't get it visible again)

(0002377: Config dialog hard to bring to front)

- Updated installation package with Transport Provider Router – Version 1.7.1.1
  - All windows are now resized/scaled depending on the DPI settings for the monitor.
- (0002578: Buttons disappear if font DPI set to 120)
- User access rights are now properly honoured in Windows 7 (where Administrator users are by default running applications with restricted access).
- (0004554: In Windows 7 restricted users can't see common paths made by Administrators)

### Updated in version 2.4.1.1

- Updated installation package with Anybus dll v.2.0.0.0
  - Fix of bug# 2632: Dpram verification errors.
  - Fix of bug# 2032: Check the datasize of mailboxes before using it.
  - Added functionality for serial communication towards Anybus module. Currently only supports the ABS\_ReceiveMail() and the ABS\_SendMail() functions.
- Added Anybus USB-Serial Driver v. 5.1 to the installation package

### Updated in version 2.3.1.1

- Updated installation package with Router dll v.1.6.1.1
  - Changed the font for parallel grid to Tahoma (This text was missed in version 2.2.1.2)

### Updated in version 2.2.1.2

- Updated Transport Provider Router to Version 1.5.1.1
  - Fixed bug #2942. Now also limited users can view installed transports and crate new paths.
  - Fixed bug #1003. Changed all fonts to Tahoma.

### Updated in version 2.2.1.1

- Updated Ethernet Transport Provider to Version 2.4.1.1
  - Fixed bug #2577. Now first tab always has focus at startup.
  - Include new version of IPconfig (v1.5.1.1) that supports Windows Vista.
- Updated installation program to support installation of hardware drivers in Windows Vista.

### Updated in version 2.1.1.1

- Updated Ethernet Transport Provider to Version 2.3.1.1



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- Transport Latency (ms) changed from 250 ms to 2000 ms.
- Bug #id2535 resolved, After approximately 24 hours the ETN dll blockes.
- Updated Router DLL to Version 1.4.1.1
  - Fixed bug #2551. Users without Admin rights can now add transport paths that are only visible for that user. Administrators create paths visible for all users.

### Updated in version 2.0.1.1

- Graphical user interface updated
- New installation package

*Bugs that are found in this software release should be reported back to HMS support department.  
Report product, software version, configuration, how to reproduce behaviour, and the effects of  
the bug.*