


User Guide Anybus Firmware Manager

Rev. 1.00

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About This Document

How To Use This Document

The reader of this document is expected to be familiar with industrial networking systems, and communication systems in general.

For more information, documentation etc., please visit the HMS website, 'www.anybus.com'.

Important User Information

Anybus-CompactCom and the technology used in Anybus-CompactCom is protected by patent, pending patents, copyright and trademark laws under the United States of America and international law.

The data and illustrations found in this document are not binding. We, HMS Industrial Networks AB, reserve the right to modify our products in line with our policy of continuous product development. The information in this document is subject to change without notice and should not be considered as a commitment by HMS Industrial Networks AB. HMS Industrial Networks AB assumes no responsibility for any errors that may appear in this document.

There are many applications of this product. Those responsible for the use of this device must ensure that all the necessary steps have been taken to verify that the application meets all performance and safety requirements including any applicable laws, regulations, codes, and standards.

Anybus® is a registered trademark of HMS Industrial Networks AB. All other trademarks are the property of their respective holders.

The examples and illustrations in this document are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular implementation, HMS cannot assume responsibility or liability for actual use based on these examples and illustrations.

Conventions & Terminology

The following conventions are used throughout this manual:

- Numbered lists provide sequential steps
- Bulleted lists provide information, not procedural steps
- The term ‘Transport Path’ refers to the software component which specifies the physical connection between the Anybus product and the Firmware Manager.
- The term ‘Anybus’ refers to the Anybus product used in the firmware download context.

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Introduction

General Information

The core of any Anybus product is the built-in firmware. As suggested by the term ‘firmware’, this lays somewhere between hardware and software. Just like software, it’s a computer program executed by a microprocessor, while on the other hand it’s also an intimate and essential part of the Anybus hardware, and has very little meaning outside of that context.

HMS continuously improve our implementations and add new features to our products. To enable users to gain access to these improvements, HMS distributes firmware packages, which can be downloaded into the products using the Anybus Firmware Manager.

The Anybus Firmware Manager aims to make the process of upgrading and managing the firmware of Anybus products as safe and simple as possible. The built-in security framework effectively prevents incompatible firmware packages from being downloaded into a product, and switching between different firmware revisions is trivial due to a database-driven firmware management approach.

System Requirements

- **Operating Systems**
 - Windows 2000
 - Windows XP
 - Windows Vista
- **Minimum Hardware**
 - Pentium 233 MHz (Recommended: Pentium 500MHz or greater)
 - 64 MB RAM (Recommended: 128 MB RAM or greater)
 - 50 MB hard drive space

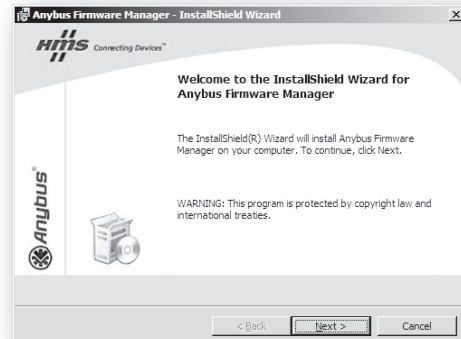
Software Installation

This software uses the InstallShield Wizard, which will guide you through the installation process.

Step 1. Launch the Installer

Double-click on the file called 'Anybus Firmware Manager Setup.exe' to start the installer.

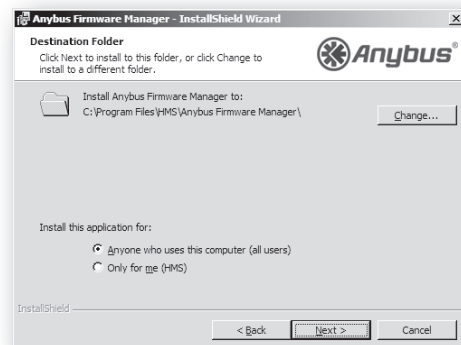
When the installer opens, click 'Next' to proceed to the next step.



Step 2. Specify Destination

The installer needs to know where to put the application files.

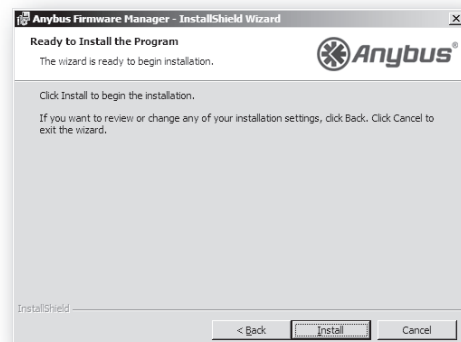
Click 'Browse' to specify a destination other than the default one, or 'Next' to proceed to the next step.



Step 3. Commence Installation

The installer is ready to install the application.

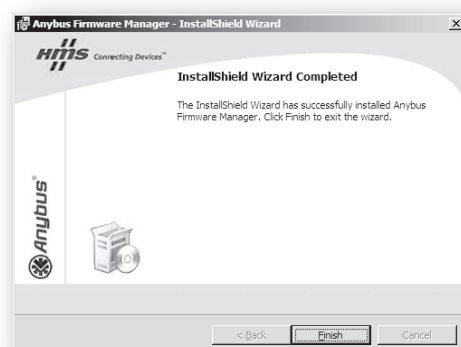
Click 'Next' to proceed. Wait a few moments while the installer copies the files to the destination folder.



Step 4. Finished

The installer has finished copying the files needed for the installation.

Click 'Finish' to exit.

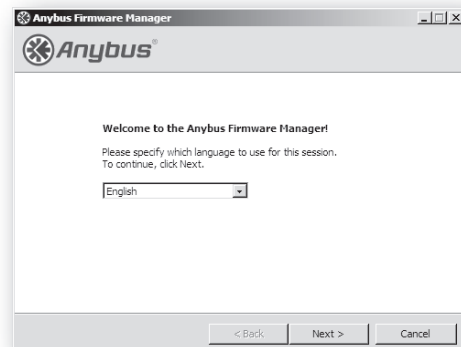


Setup and Operation

Step 1. Language Selection

(Currently only the english language is supported).

Press 'Next' to proceed to the next step.

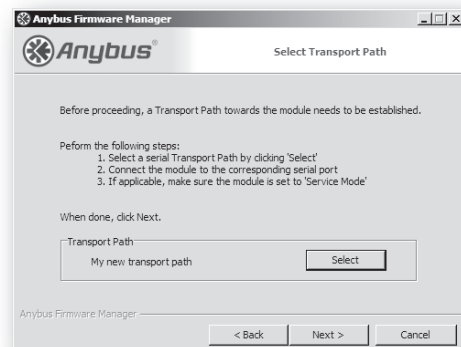


Step 2. Transport Path Selection

The Transport Path represents the logical- and physical interface used to communicate to the Anybus product. The firmware manager will remember this setting between sessions, but it has to be specified at least once.

Click 'Select' to create or specify a Transport Path (for more information, see 4-1 "Specifying a Serial Transport Path"). When done, click 'Next' to continue.

The Firmware Manager will scan the specified path for attached Anybus products (if no compatible products are detected, the program halts with a timeout error).

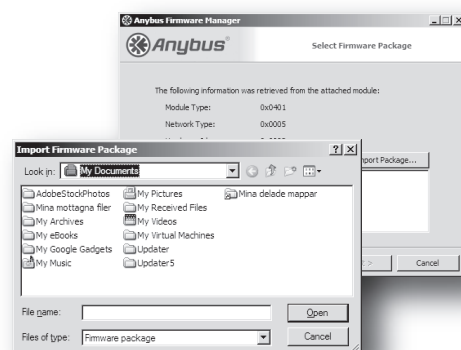


Step 3. Firmware Package Selection

The Firmware Manager displays a list of firmware packages which are compatible to the attached product.

To add a firmware package to the list, click 'Import Package...' and specify the package to be added. When added, the package becomes part of the firmware database and can be used again at a later stage.

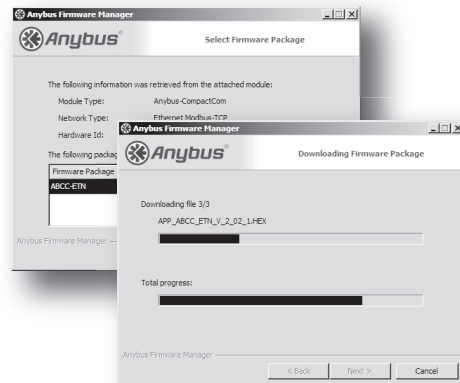
Note that the Firmware Manager will only list the packages which are compatible with the attached product; if adding packages intended for use with other products, those packages will not be visible until attaching the corresponding product.



Step 4. Firmware Download

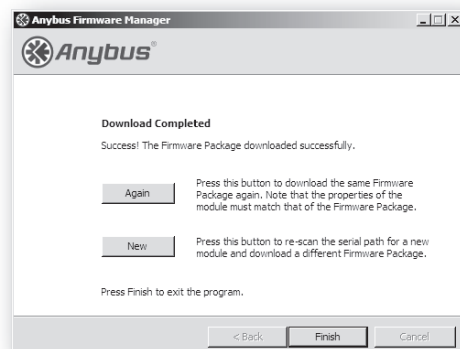
To download a firmware package into the attached Anybus product, highlight the package in question and click 'Next'.

The specified firmware package is now downloaded into the Anybus product.



Step 5. Download Completed

Click 'Again' to download the same firmware package into an equivalent Anybus product, or click 'New' to select a new firmware package and re-scan the serial transport path.

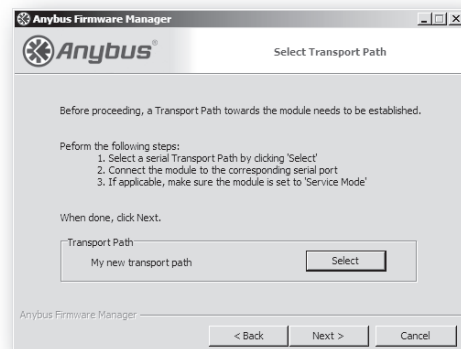


Specifying a Serial Transport Path

General Information

The Transport Path represents the connection between the computer and the Anybus product.

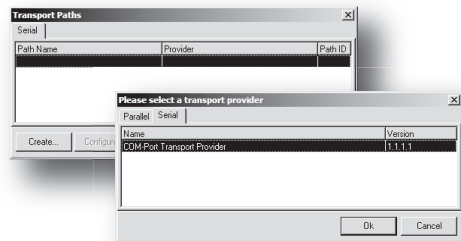
The ‘Transport Path’-dialog can be accessed by clicking ‘Select’ in the ‘Select Transport Path’-screen.



Step 1. Create Path

To create a path, click ‘Create’.

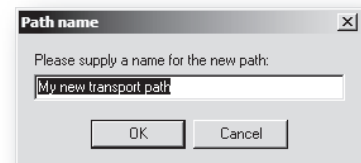
Highlight the ‘COM-Port Transport Provider’ and click ‘OK’ to proceed to the next step.



Step 2. Name the Path

Name the path as desired (e.g. “My path”).

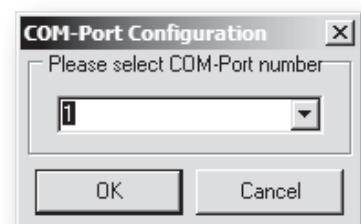
Click ‘OK’ to proceed to the next step.



Step 3. Specify COM-port number

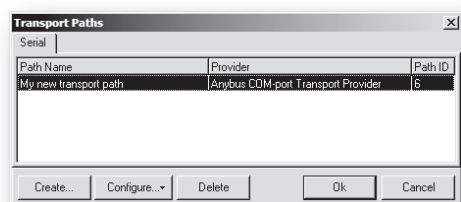
Specify the serial (COM) port used for the communication.

Click ‘Next’ to proceed to the next step.



Step 4. Done

When done, highlight the created transport path and click ‘OK’ to return to the Firmware Manager.



Troubleshooting

- **In the ‘Select Transport Path’-screen, the ‘Next’-button is greyed out.**

The ‘Next’-button will become active as soon as the Transport Path has been established. For more information, see 4-1 “Specifying a Serial Transport Path”.
- **The firmware package I just added doesn’t show up in the list.**

Most probably, the firmware package you added was intended for another hardware revision or another network type. Make sure that the firmware package you wish to download matches the actual hardware, and try again.
- **The firmware manager claims the package I’m trying to add is already present in the database, yet it doesn’t show up in the list of available packages.**

The package in question is most likely already present in the firmware database - but the firmware manager will only list the packages that are compatible with the currently attached hardware.
- **A connection timeout occurs before I can even select a firmware package.**

To prevent incompatible firmware packages from being downloaded into the product, the firmware manager scans the path for attached Anybus products. If no device is detected, it halts with a ‘Connection Timeout’ error.

Possible causes:

 - Anybus module not connected; make sure the Anybus module is properly connected and try again.
 - Configuration jumpers/switches are not set properly. In case of Anybus-CompactCom modules, the Operation Mode needs to be set to ‘Service Mode’.
 - Communication problem; make sure the physical connection (i.e. serial cable etc.) works properly.
 - Incompatible product; older products may not be compatible with the Firmware Manager. Consult the documentation for the product in question for further information.
- **I just downloaded a firmware package, but encounter a connection timeout when I try to download the same firmware again (by clicking the ‘Again’ button).**

Quite possibly, the product needs to be restarted. Press the on-board reset button (if applicable) or power cycle the product, and try again.
- **The firmware download process halts with a ‘Download Failed’ message.**

Something caused a communication problem between the Firmware Manager and the Anybus product. Verify the physical connection used for the Transport Path.

