ibaPDA-Interface-Profinet

Interface to Profinet over CP1616

Quick Guide

Issue 1.0

Measurement and Automation Systems

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The content of this publication has been checked for compliance with the described hardware and software. Nevertheless, deviations cannot be excluded completely so that the full compliance is not guaranteed. However, the information in this publication is updated regularly. Required corrections are contained in the following regulations or can be downloaded on the Internet.

The current version is available for download on our web site http://www.iba-ag.com.

Protection note

Windows® is a label and registered trademark of the Microsoft Corporation. Other product and company names mentioned in this manual can be labels or registered trademarks of the corresponding owners.

Certification

The device is certified according to the European standards and directives. This device corresponds to the general safety and health requirements. Further international customary standards and directives have been observed.

Table of contents

1 About this guide

This guide describes the configuration of the software interface ibaPDA-Interface-Profinet in ibaPDA-V6.

1.1 Target group

This guide addresses in particular the qualified professionals who are familiar with handling electrical and electronic modules as well as communication and measurement technology. A person is regarded to as professional if he/she is capable of assessing safety and recognizing possible consequences and risks on the basis of his/her specialist training, knowledge and experience and knowledge of the standard regulations.

1.2 Designations

The following designations are used in this guide:

Action	Designations
Menu command	Menu „Logic diagram"
Call of menu command	„Step 1 – Step 2 – Step 3 – Step x" Example: Select menu „Logic diagram – Add – New logic diagram "
Keys	<Key name> Example: <Alt>; <F1>
Press keys simultaneously	<Key name> + <Key name> Example: <Alt> + <Strg>
Buttons	<Button name> Example: <OK>; <Cancel>
File names, Paths	„File name", „Path" Example: „Test.doc"

1.3 Used symbols

If safety instructions or other notes are used in this guide, they mean:

⚠ DANGER

The non-observance of this safety information may result in an imminent risk of death or severe injury:

- By an electric shock!

- Due to the improper handling of software products which are coupled to input and output procedures with control function!

If you do not observe the safety instructions regarding the process and the system or machine to be controlled, there is a risk of death or severe injury!

⚠ WARNING

The non-observance of this safety information may result in a potential risk of death or severe injury!

⚠ CAUTION

The non-observance of this safety information may result in a potential risk of injury or material damage!

Note

A note specifies special requirements or actions to be observed.

Important note

Note if some special features must be observed, for example exceptions from the rule.

Tip

Tip or example as a helpful note or insider tip to make the work a little bit easier.

Other documentation

Reference to additional documentation or further reading.

2 Introduction

The Profinet interface of ibaPDA-V6 uses the CP1616 board from Siemens.

The card is used as a Profinet **controller**.

ibaPDA-V6 only supports IRT controller - controller communication, but no RT communication.

ibaPDA-V6 supports up to 4 CP1616 cards in 1 computer.

Important note

The CP1616 card is supported under Windows XP only.

Operation with Windows Vista, Windows 7, Windows Server 2008 is not supported.

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3 CP1616 interface

Figure 1

The screenshot shows the diagnostics of the CP1616 card. The diagnostics show the current configuration that has been loaded on the card via the Siemens NetPro program.

❑ Status: shows the name of the controller and the status of the controller (online or offline).

❑ Receiver table (I/O:IN): shows an overview of all the configured receivers on the card. A receiver has a green background if there is a connection. It has a red background if there is no connection.

❑ Interrupt counters: show the number of IRT and RT interrupts

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❑ IRT counters: show the number of times newcycle, startop and opfault have oc-curred

❑ IRT copy time: shows the time it takes to copy the incoming Profinet data from the card to the computer's memory. The timing is only done when the acquisition is running.

❑ Reset button: resets the card

❑ Open log file button: opens the Profinet log file.

❑ Dump firmware trace buffer: Pressing this button writes the firmware trace buffer in a text file. ibaPDA-V6 has the ability to detect CP1616 firmware exceptions au-tomatically. When ibaPDA-V6 detects such an exception it will dump the firmware trace buffer automatically. ibaPDA-V6 will also add an error message to the event log.

❑ Reset counters button: resets the all the diagnostic counters and copy times

3.1   Simotion D module

The Simotion D module is a Profinet module created for 1 drive connected to a SIMO-TION D controller. There can be a maximum of 1024 modules mapped to the CP1616 interface card.
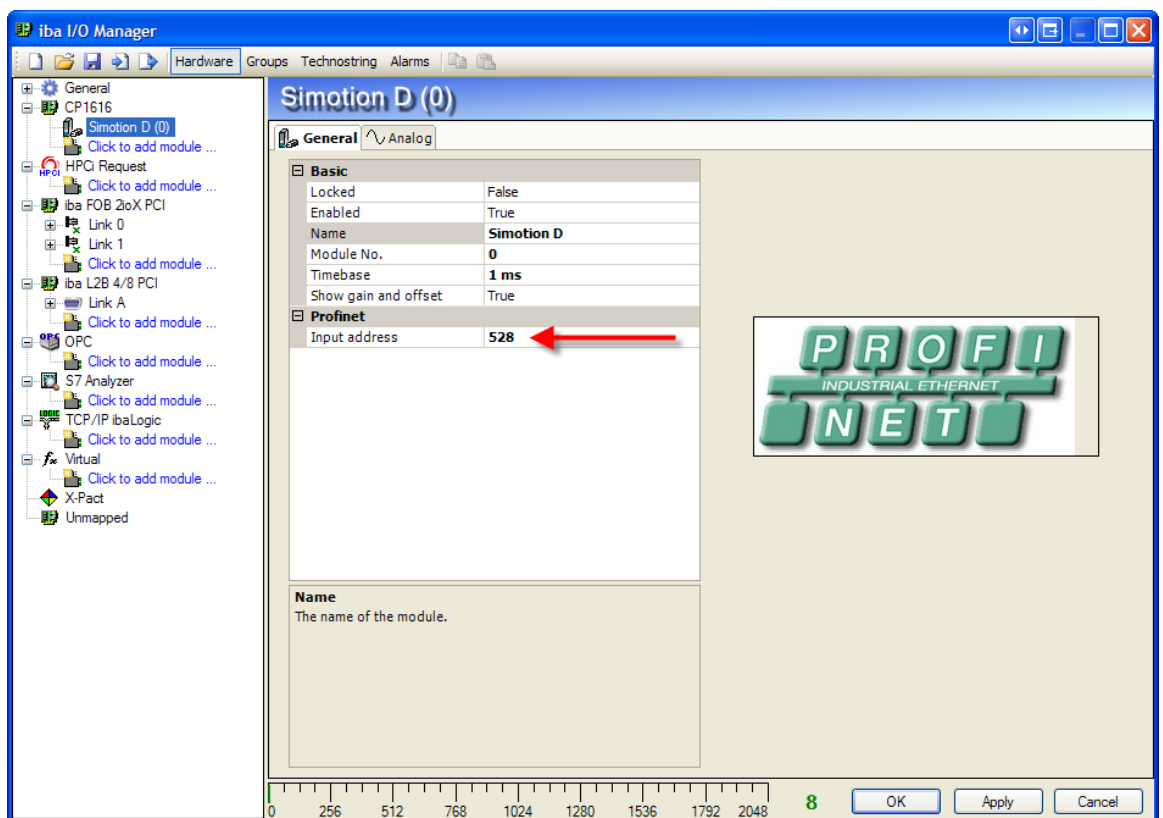

Figure 2

On the general tab you should configure the input address. This input address is the address you've configured for the receiver in NetPro before. You can also see the ad-dress in the diagnostic's receiver table (I/O:IN) of the CP1616 interface (see Figure 1).
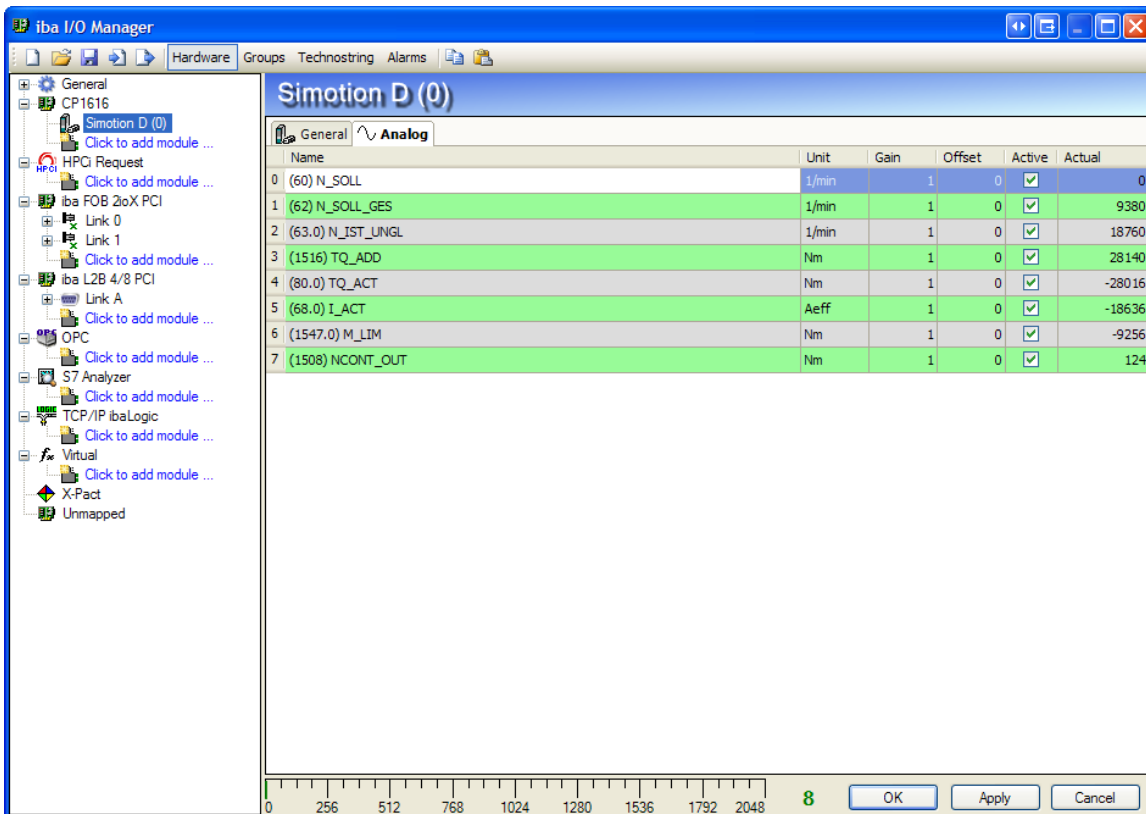
Figure 3

The Simotion D module has 8 analog signals of data type INT (16 bit signed integer). The signals have a default name, unit and comment. These properties can be changed if the defaults are not correct.

The Actual column shows the current value received via Profinet. If the connection is ok then the values have a black color. If the connection is not ok then the values have a red color. If the input address is not available then "Unknown" appears in the Actual column (Figure 5).

3.2   Generic Profinet controller module

The generic Profinet controller module has a variable number of analog and digital signals. You can set the number of signals according to your needs. (Figure 4)

The input address and the data type of each analog signal can be configured. (Figure 5)

The input address and bit number of each digital signal can be configured. (Figure 6)
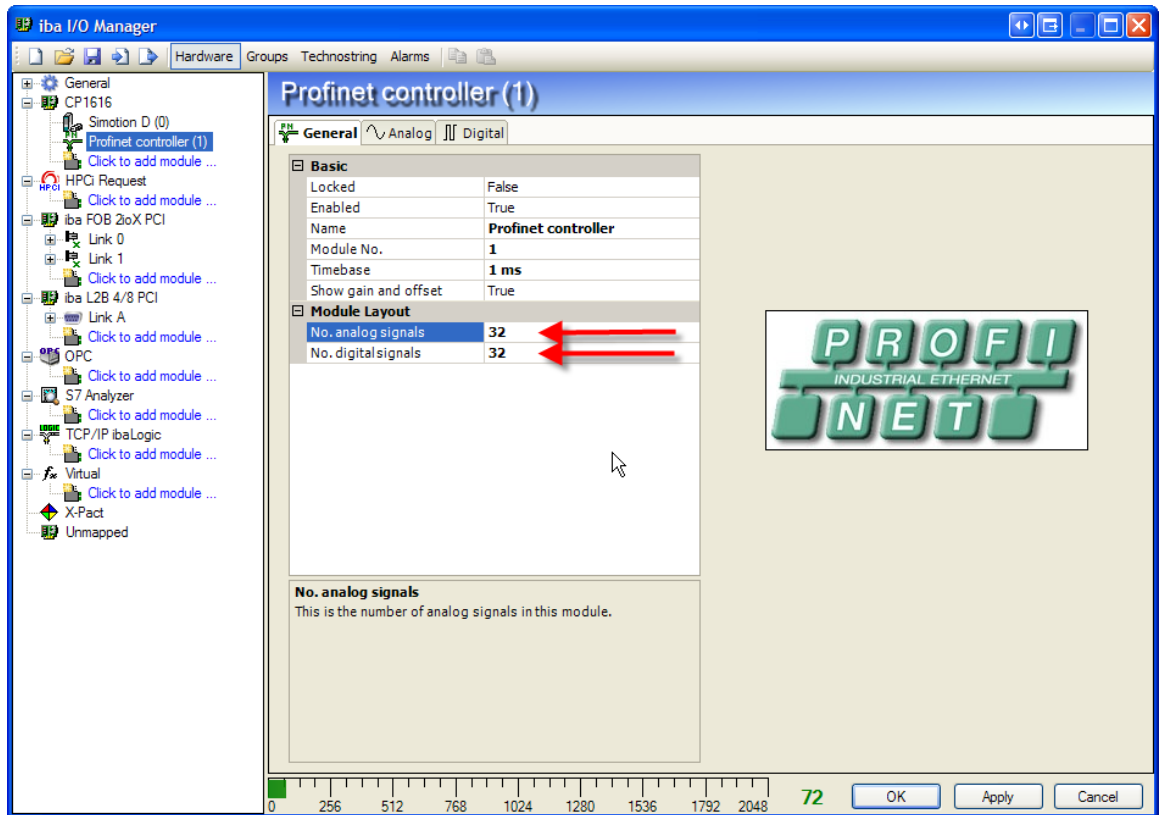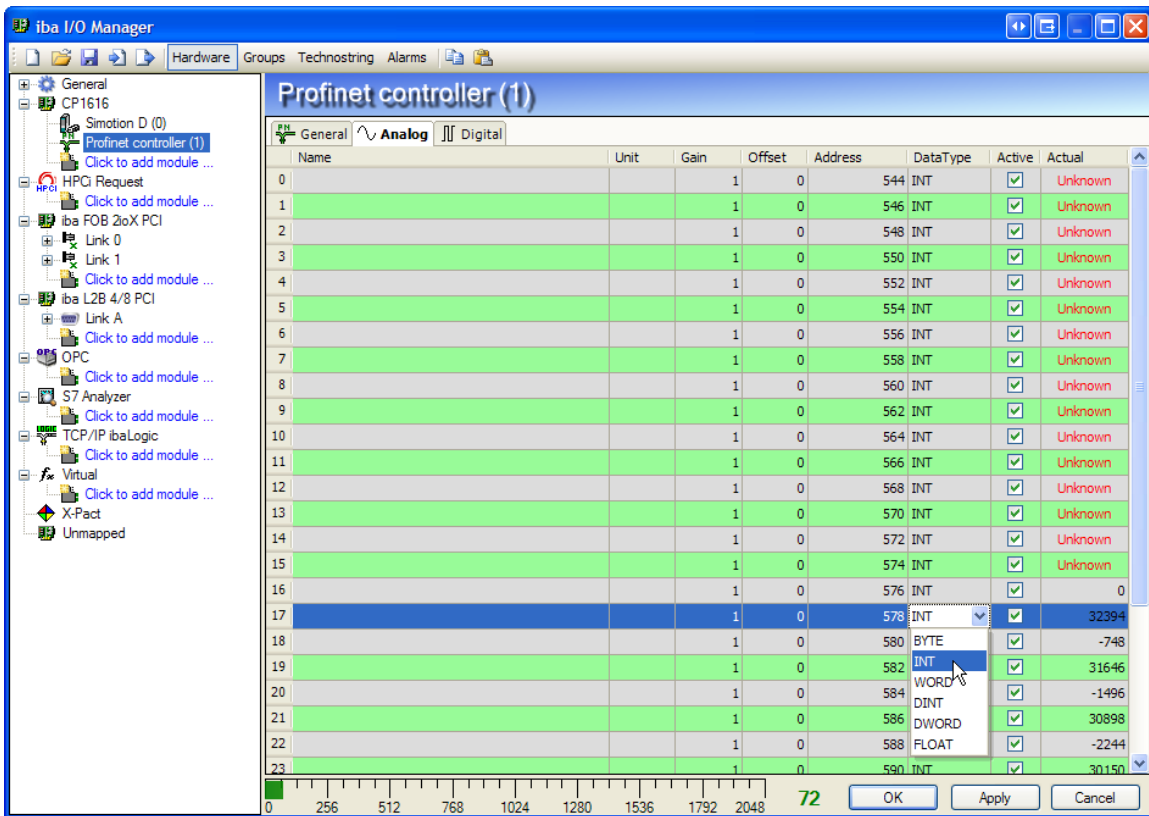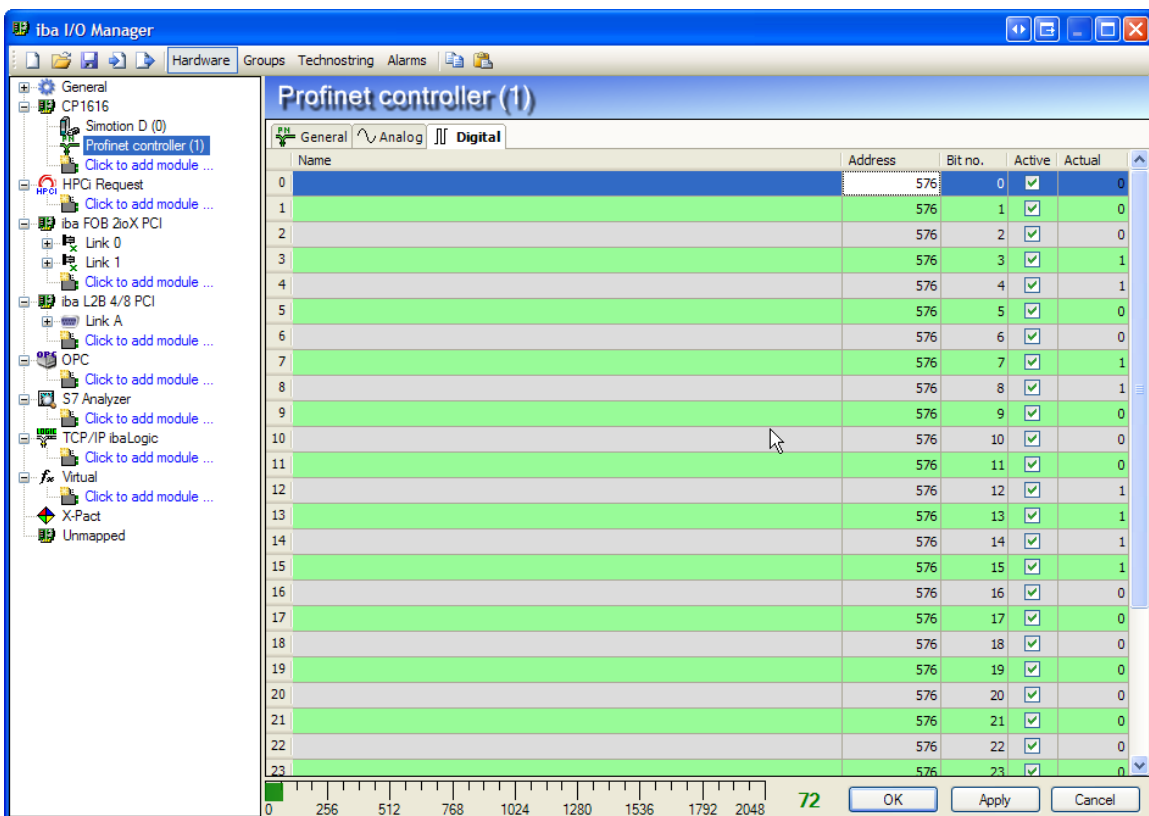

Figure 4

Figure 5

Figure 6

4   Support and Contact

Support

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Note

If you require support, specify the serial number (iba-S/N) of the product.

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