

WAGO I/O SYSTEM 750

Linking up the WAGO 750-842 Ethernet Controller to Siemens WinCC using Modbus TCP

Application note

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Every conceivable measure has been taken to ensure the correctness and completeness of this documentation. However, as errors can never be fully excluded we would appreciate any information or ideas at any time.

We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally trademark or patent protected.

TABLE OF CONTENTS

| | | |
|----------|--|----------|
| 1 | Important comments | 4 |
| 1.1 | Legal principles..... | 4 |
| 1.1.1 | Copyright | 4 |
| 1.1.2 | Personnel qualification | 4 |
| 1.1.3 | Intended use | 4 |
| 1.2 | Range of validity..... | 5 |
| 1.3 | Symbols | 5 |
| 2 | Description..... | 6 |
| 2.1 | Reference Material..... | 6 |
| 3 | Configuring the Modbus driver..... | 6 |
| 4 | Configuring WinCC | 8 |
| 4.1 | Configuring a connection..... | 8 |
| 4.2 | Setting up variables..... | 10 |
| 4.3 | Integrating variables into the visual display system | 11 |

1 Important comments

To ensure fast installation and start-up of the units described in this manual, we strongly recommend that the following information and explanation is carefully read and adhered to.

1.1 Legal principles

1.1.1 Copyright

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1.1.2 Personnel qualification

The use of the product detailed in this manual is exclusively geared to specialists having qualifications in PLC programming, electrical specialists or persons instructed by electrical specialists who are also familiar with the valid standards. WAGO Kontakttechnik GmbH declines all liability resulting from improper action and damage to WAGO products and third party products due to non-observance of the information contained in this manual.

1.1.3 Intended use

For each individual application, the components supplied are to work with a dedicated hardware and software configuration. Modifications are only admitted within the framework of the possibilities documented in the manuals. All other changes to the hardware and/or software and the non-conforming use of the components entail the exclusion of liability on part of WAGO Kontakttechnik GmbH.

Please direct any requirements pertaining to a modified and/or new hardware or software configuration directly to WAGO Kontakttechnik GmbH.

1.2 Range of validity

This application note is based on the stated hardware and software of the specific manufacturer as well as the correspondent documentation. This application note is therefore only valid for the described installation.

New hardware and software versions may need to be handled differently. Please note the detailed description in the specific manuals.

1.3 Symbols



Danger

Always observe this information to protect persons from injury.



Warning

Always observe this information to prevent damage to the device.



Attention

Marginal conditions must always be observed to ensure smooth operation.



ESD (Electrostatic Discharge)

Warning of damage to the components by electrostatic discharge. Observe the precautionary measure for handling components at risk.



Note

Routines or advice for efficient use of the device and software optimisation.



More information

References to additional literature, manuals, data sheets and INTERNET pages

2 Description

These application notes describe the use of the 750-842 Ethernet Controller in conjunction with the Modbus Ethernet driver from Cyberlogic when used under the Windows NT4 operating system together with the SCADA software WinCC from Siemens.

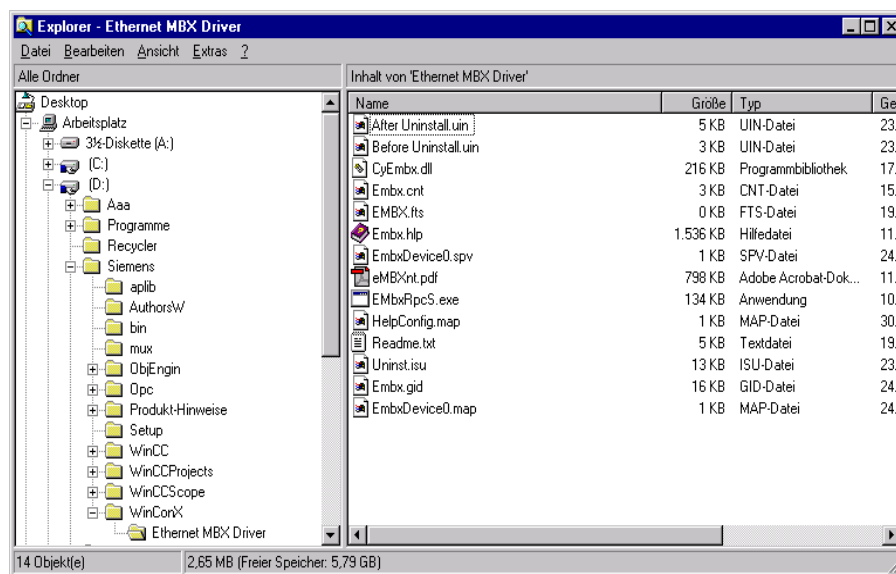
2.1 Reference Material

The link-up has been tested under the following conditions:

| Name | Manufacturer | Type |
|-------------------------|--------------|------------------|
| Ethernet controller | WAGO | 750-842 (02/06) |
| Ethernet MBX(SWMXDS001) | Cyberlogic | V4.20.02 SP2;NT4 |
| WinCC | Siemens | V5.0 SP2 |

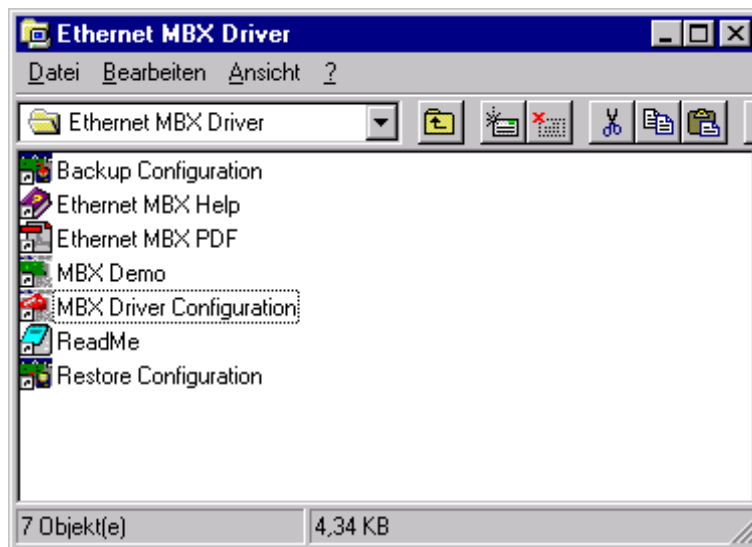
3 Configuring the Modbus driver

The Modbus driver suite is distributed by Schneider Automation. The corresponding order no. is: SWMXDS001.

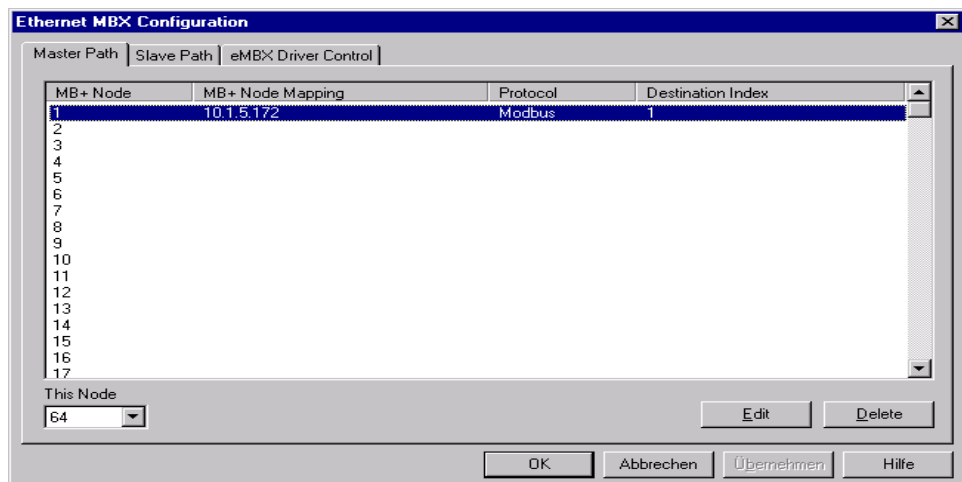
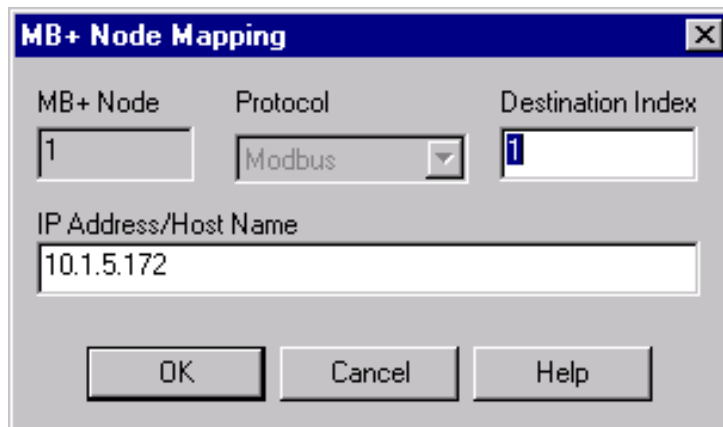


When installation is successfully completed, a directory called WinConX is created in the Siemens folder and a shortcut to the configuration tool is placed on the desktop.

Start the configuration tool by selecting the MBX Driver Configuration entry.



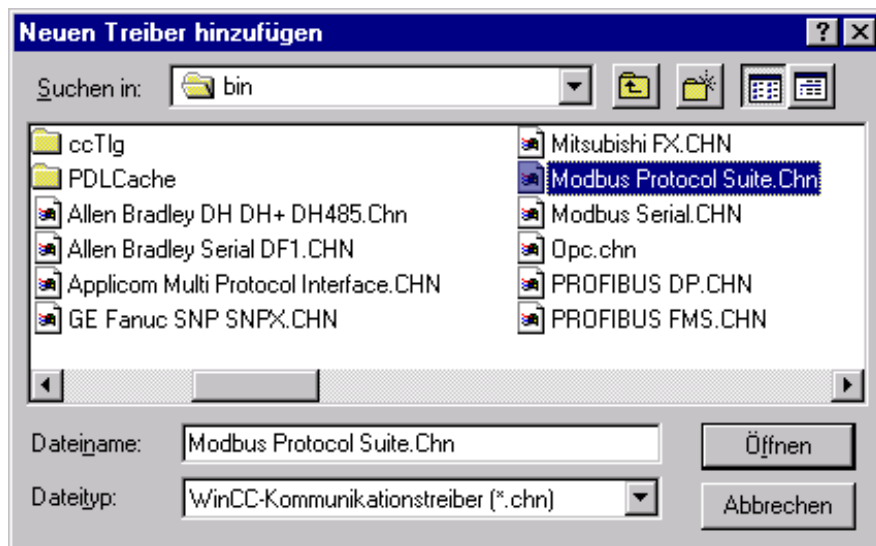
The Ethernet address of the WAGO controller has to be specified in the driver configuration. A destination index must also be entered. This entry enables the driver to be addressed in WinCC.



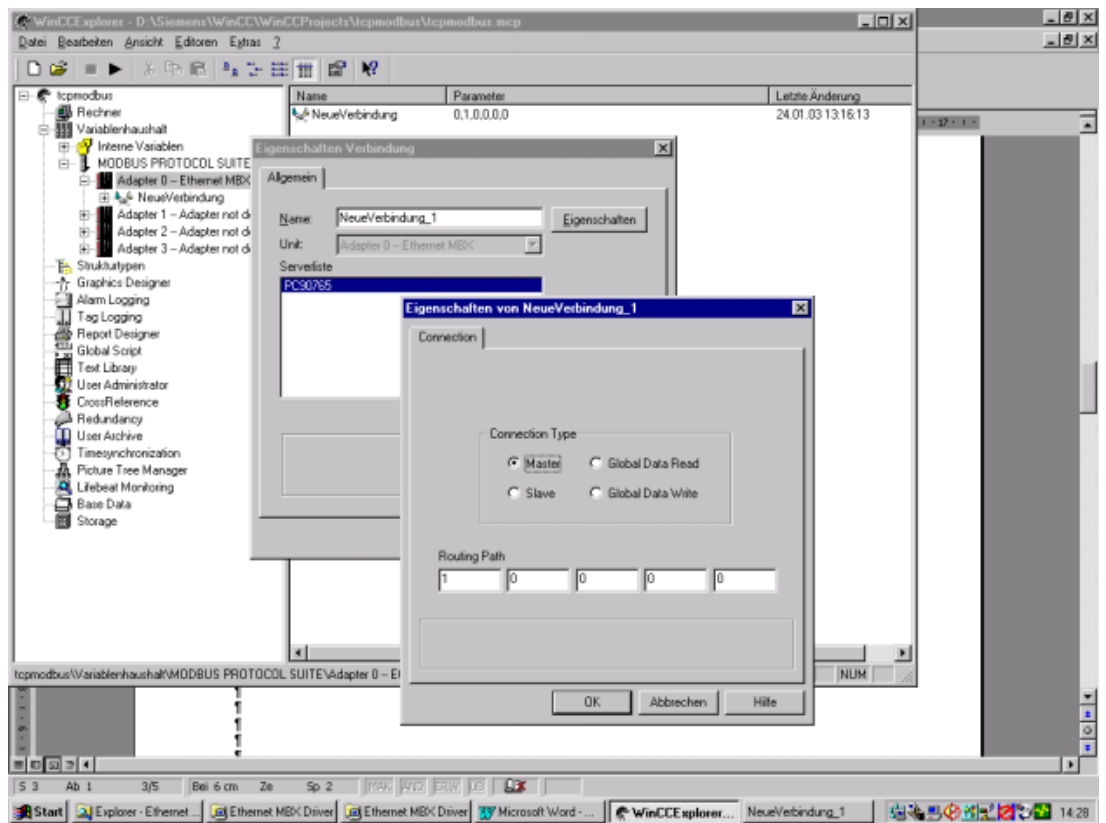
4 Configuring WinCC

4.1 Configuring a connection

In WinCC, select the driver Modbus Protocol Suite.

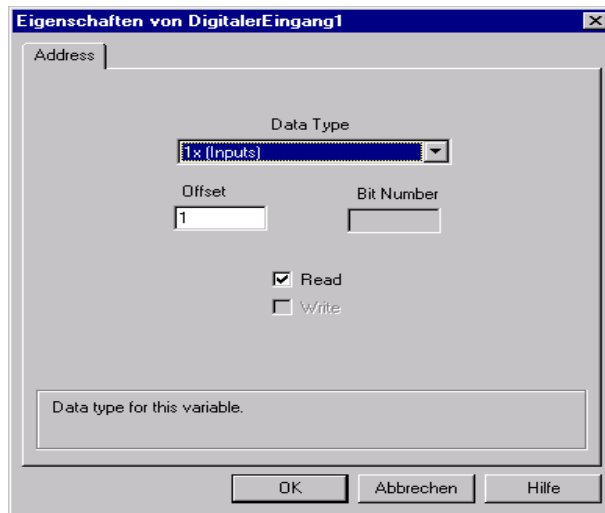


Create a new connection and in the properties create a master connection with routing path 1.0.0.0.0 (the assignment of the IP address has already been done in the driver configuration).

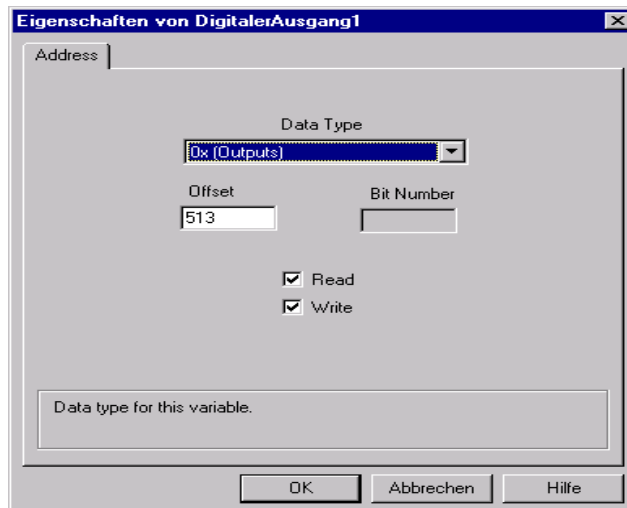


4.2 Setting up variables

Definition of the first digital input:

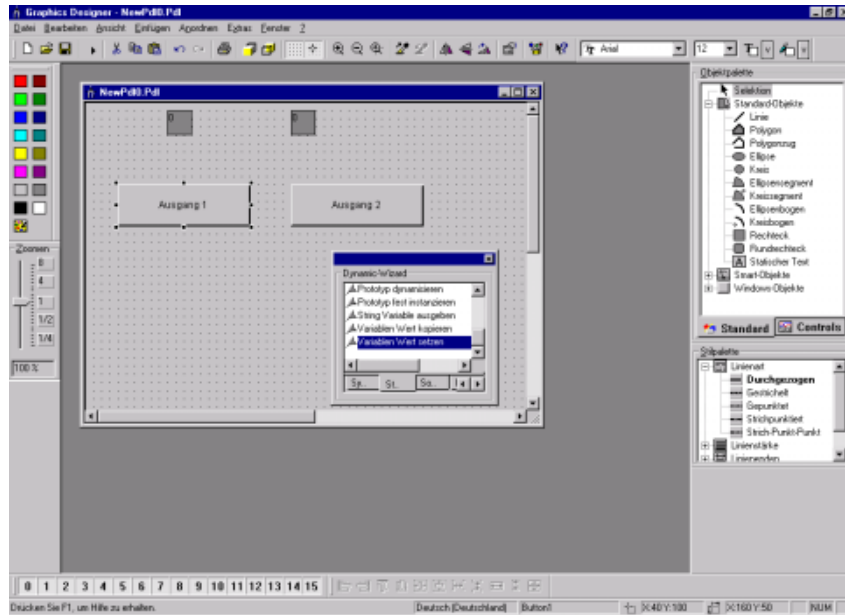


Definition of the first digital output:

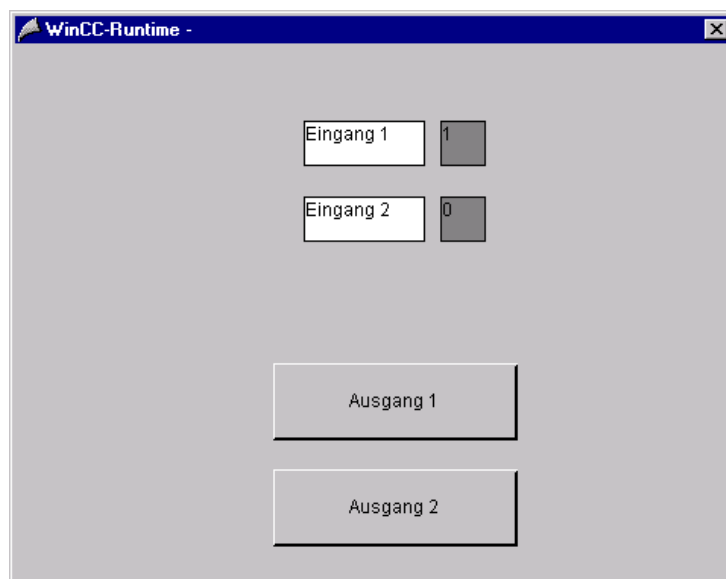


4.3 Integrating variables into the visual display system

Select an element and then call the Dynamic Wizard by double clicking on the entry **Set variable value**.



The process values can be observed in the runtime environment.





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