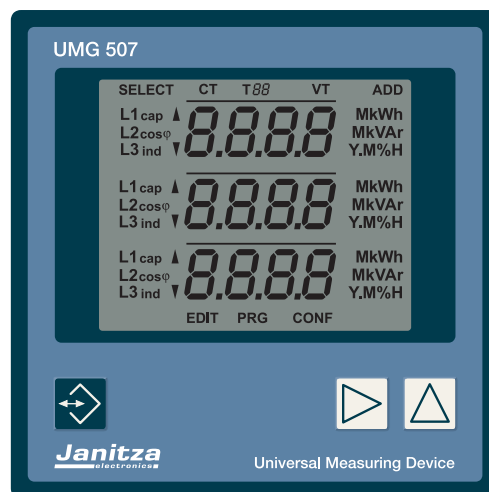


Universal Measuring Device

UMG507

Functional description

OPC Server Port 502



Generals

The UMG507 supports the protocols Modbus RTU, Modbus TCP/IP, Modbus over TCP/IP (Modbus Gateway) or Profibus DP V0, depending in the version. This functional description is an addition to the manual and describes the configuration of the corresponding function step by step.

More functional descriptions can be found on the CD-ROM PSWbasic/professional. At present, the following functional descriptions are available:

- UMG507 used as remote data display for external Modbus slaves
- OPC Server Port 502
- OPC Server Port 8000 (Modbus Gateway Function)
- The webserver of UMG507
- Description of the storage of UMG507
- Description of Profibus with examples

Issue note:

18.11.2004

22.11.2004

First edition / Wagner

Correction

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OPC Server

Via a configurable and scalable software driver the measured values and process data of a UMG 507 can be submitted via OPC to a visualization system. This software driver contains a MODBUS TCP/IP or MODBUS over TCP/IP Master and an OPC Server. The data (e.g. measured values) are read via the Ethernet interface (PORT 502, protocol Modbus TCP/IP) and provided to the OPC Server. The **OPC Server** delivers the data to the **OPC Client** of the external program. The data exchange can be done within an internal network also. DCOM must be configured only. We recommend the software driver (charged) der Firma Toolbox www.softwaretoolbox.com. Up to 6 software applications can use Port502 of UMG507E/EP simultaneously.

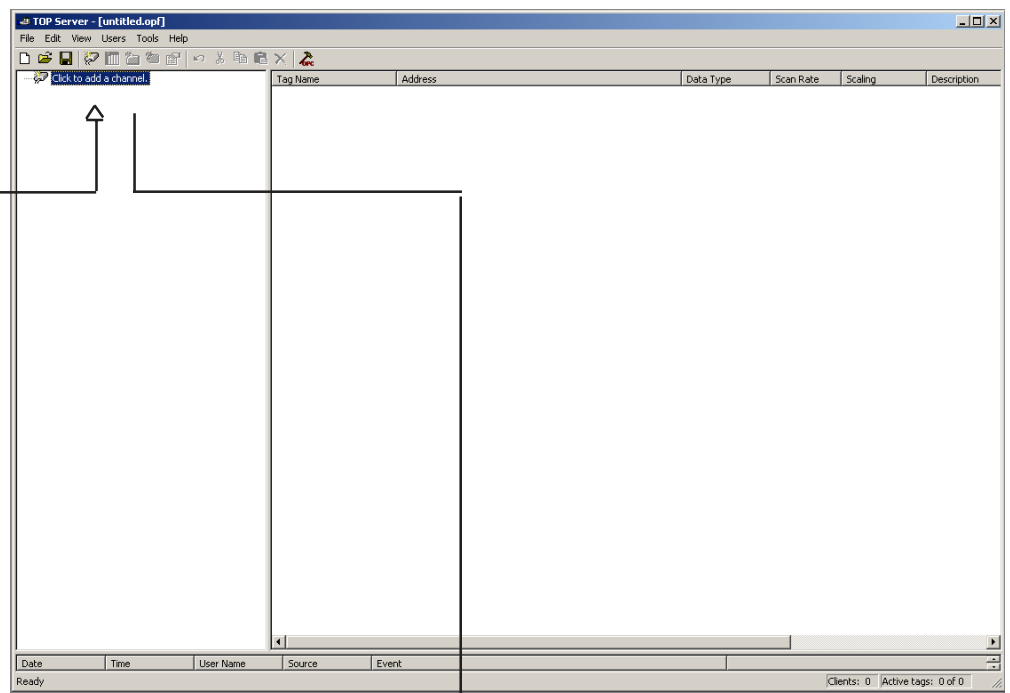
Note:

This description is a summary / addition and was written especially for the software driver of the company Toolbox. This description does not nullify the detailed description. Furthermore, we fully recognize all licence rights of Software Toolbox an.

Configuration of the OPC Top Server (Modbus TCP/IP, Port 502)

Step 1: Open the OPC TOP Server first

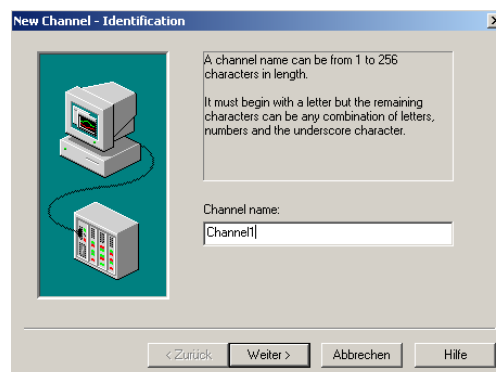
After double click on function „Click to add channel“ a new communication channel is activated.



Picture 1

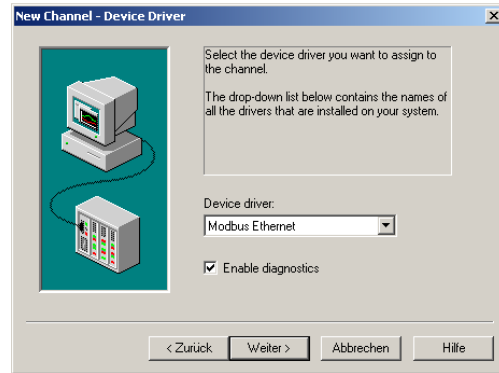
Step 2: Configure communication channel

Enter a name.



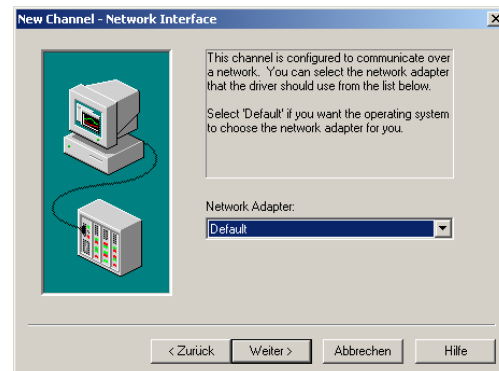
Picture 2

Select „**Modbus Ethernet**,” as driver and activate the diagnosis.

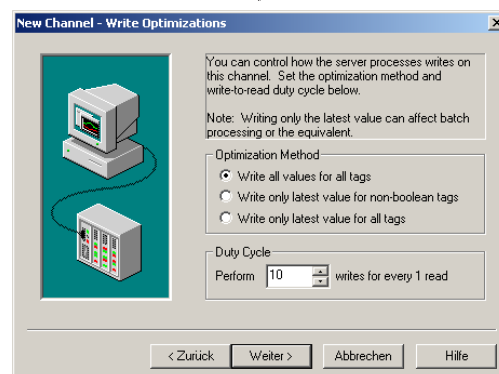


Picture 3

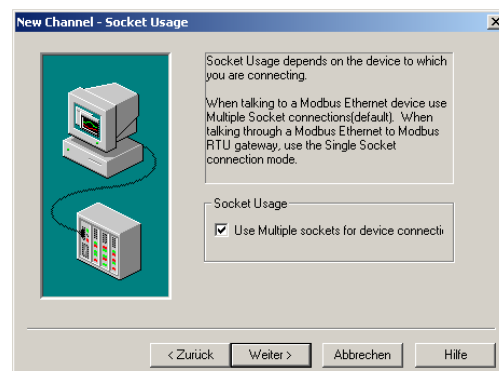
The settings of the following dialogues can be used unchanged.



Picture 4



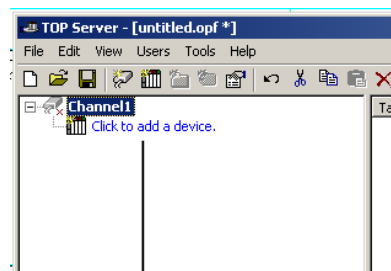
Picture 5



Picture 6

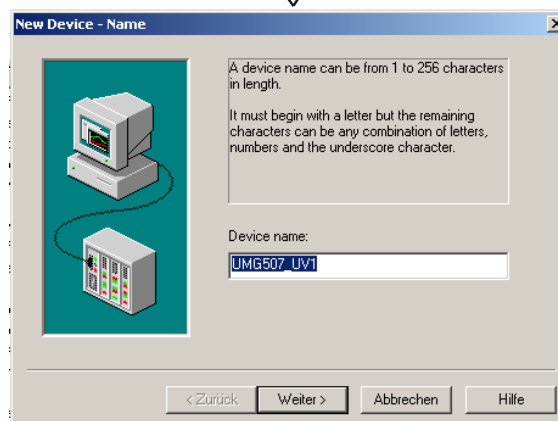
Step 3: Enter device name

Add a device by clicking function „Click to add a device“.



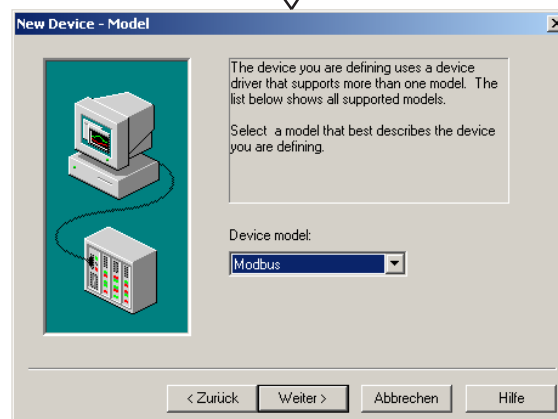
Picture 7

Enter any device name.



Picture 8

Use the settings in the right dialogue.



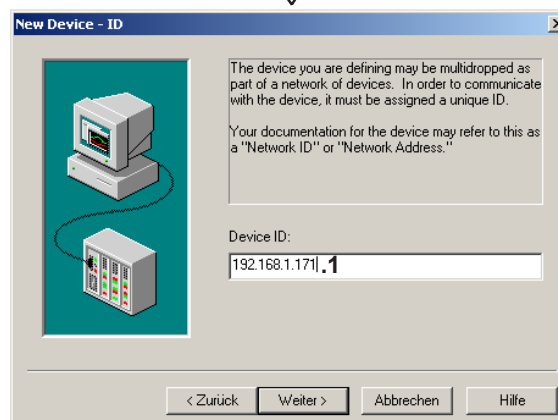
Picture 9

Set the IP address of the UMG507E/EP followed by the Modbus address.

Example 192.168.1.179.1

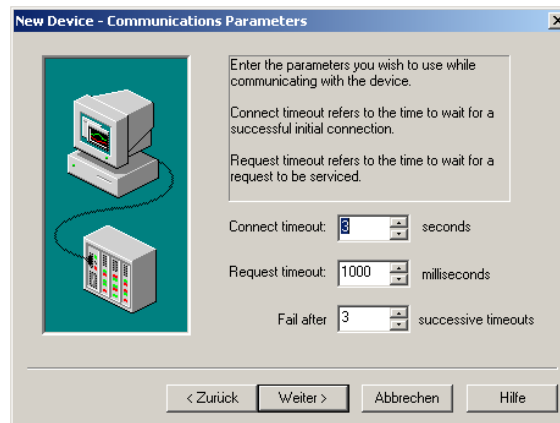
IP Address

Modbus Address

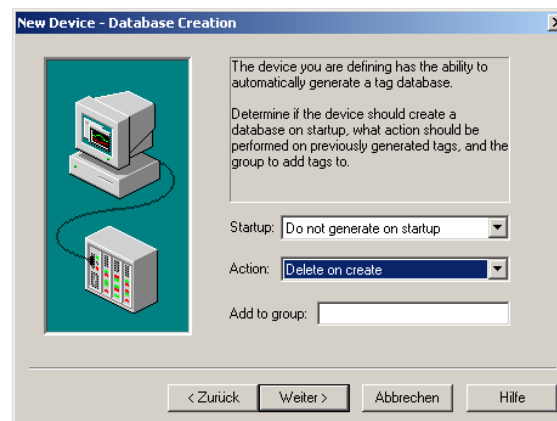


Picture 10

The settings in the next two dialogues can be used unchanged.

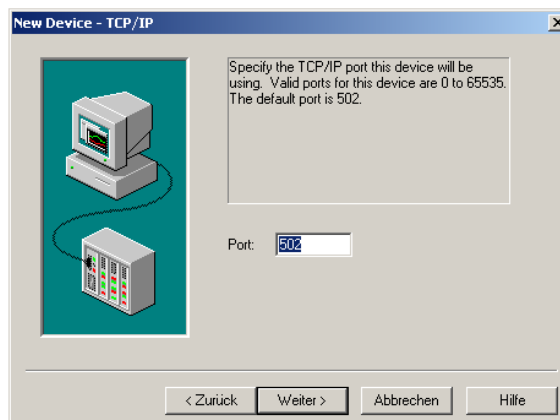


Picture 11



Picture 12

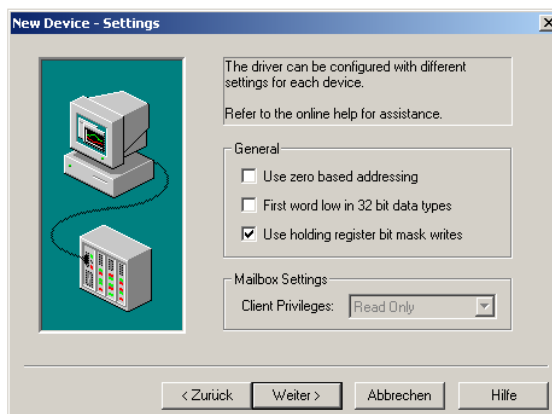
The Port for a Modbus TCP/IP connection is always 502.



Picture 13

Deactivate „Use zero based addressing“ and „First word low in 32bit data types“

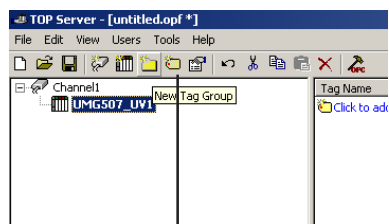
The other dialogues can be used unchanged.



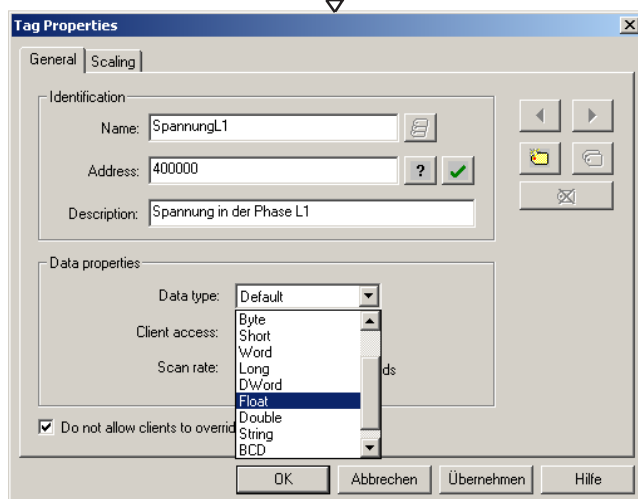
Picture 14

Step 4: Open a day.

Press function „New Day“. Select „Float“ as format.



Picture 15



Picture 16

Name: Here the name of the measured value can be entered.

Address: The register address must be entered in format 40XXXX. The last four digits will be replaced by the real register address of the slave. The register addresses of the UMG507E/EP can be found as pdf file on the CD-ROM PSWbasic/professional.

Examples from address list of the UMG507:

Input
In OPC Server
400000
400002
400004
400006
400008
400010
u.s.w



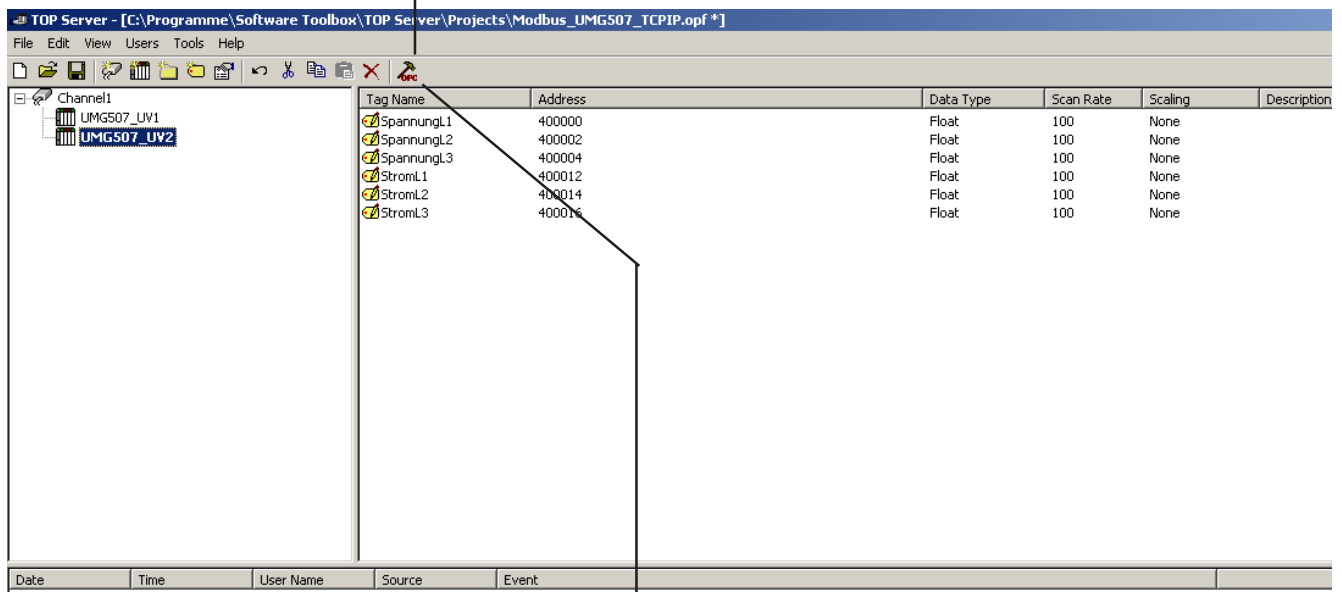
Register Address	Description	Type
0	VoltagePhase: L1	32 bit float
2	Voltage Phase: L2	32 bit float
4	Voltage Phase: L3	32 bit float
6	Voltage Phase LL: L12	32 bit float
8	Voltage Phase LL: L23	32 bit float
10	Voltage Phase LL: L31	32 bit float

Description: Any description.

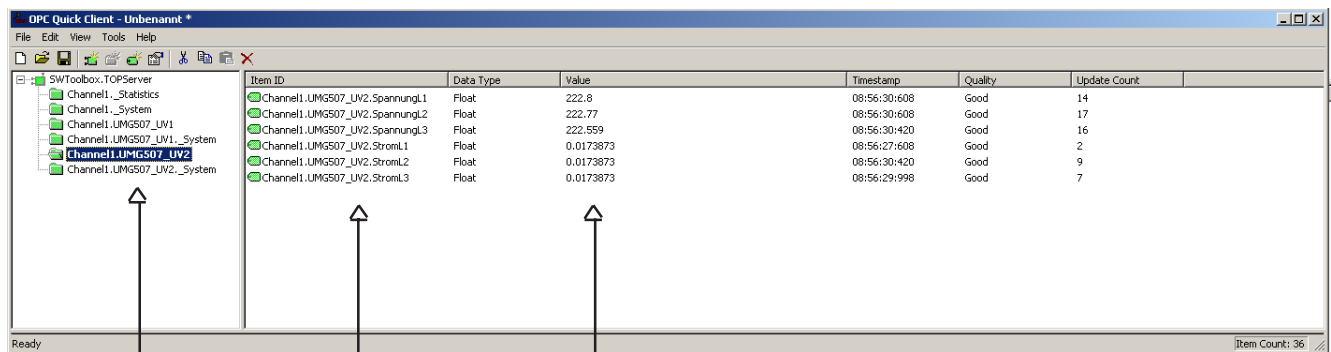
Data Type: The data are as „Float“.

In picture 17 two measuring devices were configured. The device with device description UMG503_UV2 was assigned to six measured values. If the configuration is finished, the OPC server can be tested. The software driver contains an OPC Quick Client (Picture 18).

Open OPC Quick Client



Picture 17



Picture 18

**OPC Server
Name**

Item ID

**Measured
value**

The configuration of the OPC Quick Client will be done automatically. Select your meter on the left side. The Item ID and the measured values are indicated on the right side.

Note: The visualization system requires the following information for configuration:

Server Name (SWToolbox.TopServer)
Item ID
Data Type