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GridVis® software quick guide UMG 509-PRO

Supplement to the user manual and installation manual

Deutsche Version: siehe Vorderseite



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1 General

This quick guide to our GridVis® software is a supplement to the user manual and installation manual of the UMG 509-PRO.
The following steps outline the most common connections for communication between PC and device.

First, please read and ensure that you understand the information products that accompanies the product and in particular the safety related information contained therein.

Disclaimer
The observance of the information products for the devices is a prerequisite for safe operation and to achieve the stipulated performance characteristics and product characteristics. Janitza electronics GmbH accepts no liability for injuries to personnel, property damage or financial losses arising due to a failure to comply with the information products. Ensure that your information products are accessible and legible.

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Subject to technical amendments
Information and specifications subject to change. Please inform yourself under www.janitza.com on the latest version of our software.

SAFETY
Please note safety instructions in this document, which are shown as follows and include the following level of danger for our software:

VORSICHT! Refers to dangerous situations which, for example, can lead to property damage from data loss or failures in IT network.

This symbol with the word **NOTE!** describes important information, procedures or handling steps.

2 UMG 509-PRO - PC connections

Connections for PC-to-device communication:

1. PC — Ethernet (crossover patch cable) — UMG

The device and PC require a static IP address.

2. PC — Patch cabel — Switch/ Router — Patch cabel — UMG

The device and PC require a static IP address.

3. DHCP server — Patch cabel — Switch/ Router — Patch cabel — PC, UMG

DHCP server automatically assigns IP addresses to the device and PC.

NOTE!
The description of additional communication interfaces can be found in the user manual for your device.

*Fig. Rear side view **UMG 509-PRO***



Ethernet connection

Patch cable

Recommendation:
Use at least a CAT5 cable!

CAUTION!
Incorrect network settings can cause faults in the IT network!
Property damage due to incorrect network settings
Find out the correct Ethernet network settings for your device from your network administrator.

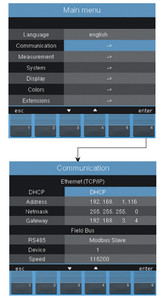
3 UMG 509-PRO - PC connection via Ethernet (TCP/IP)

The most common connection to the communication between PC and UMG 509-PRO is the Ethernet connection.

The device has 3 types of address allocation for the Ethernet interface (TCP/IP) in **DHCP** mode:
1. **OFF (fixed IP address)**
   The user selects the IP address, network mask and gateway on the device. Use this mode for straightforward networks without DHCP servers.
2. **BOOTP**
   Automatically integrates your device into an existing network. BOOTP is an older protocol and has a smaller scope of functions than DHCP.
3. **DHCP**
   When started, the device automatically receives the IP address, the network mask and the gateway from the DHCP server.

Standard setting for the device is DHCP!

NOTE!
The setting of the device IP address, refer the installation manual (steps „Controls and button functions" and „configuration") of your device.



4 Check the IP address of your computer

For further settings and the next steps it is important to check the IP address of your PC and to note this down if necessary.

There are 2 ways to check the IP address of your PC:
1. Via the *"Windows input prompt" (CMD window)*.
2. Via the *"Control panel"*.

Checking the IP address via the *"Windows input prompt"*:
1. Press the Windows key.
2. The *"Start menu"* appears with the search window.
3. Enter the command *"cmd"* in the search window and confirm with the *"Return key"*.
4. The *"Windows input prompt"* appears.
5. Enter the command *"Ipconfig"* and confirm with the *"Return key"*.
6. The IP address, the subnet mask and the standard gateway for your PC appear in the *"Windows input prompt"*.

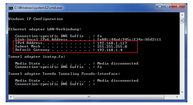


*Fig. MS-Windows 7 - **Windows input prompt (CMD window)***

Checking the IP address via the "Control panel":
1. Press the Windows key.
2. The *"Start menu"* appears.
3. Click on *"Control panel"* in the right menu field.
4. The *"Adjust your computer's settings"* window appears.
5. Click on *"Network and sharing center"*.
6. The *"Network and sharing center"* window appears.



Fig. MS Windows 7 - "Network and sharing center" window

7. Click on *"Local area connection"* under the internet heading.
8. The *"Local area connection status"* window appears.

9. Click the *"Details"* button.

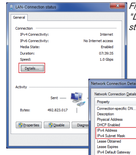


Fig. MS Windows 7 - "Local area connection status" window

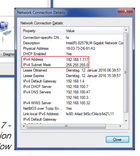


Fig. MS Windows 7 - "Network connection details" window

10. The *"Network connection details"* window appears showing the IP address and the subnet mask of your PC.

5 Connection test - computer settings (Ethernet/TCP/IP connection)

A **connection test between your device and the PC is required** to
- integrate your device into the software.
- access the device homepage via a web browser.

Proceed as follows for the connection test:
1. **Ensure** that the
   - first three blocks of the **PC's IP address** (see "Check the IP address of your computer", step 4) match those of the **device IP address.**
   - the last three digits (xxx) of the PC´s IP address must be different from the last three digits of the device IP address.
   - subnet mask of your PC corresponds with that of your device.

Example: IP address: 192.168.1.xxx
Subnet mask: 255.255.255.0

2. **Read out the IP address of the device**
   1. Change to the *Configuration* window - press button 1 *"ESC"*.
   2. Select the menu *Communication* menu entry with button 3 and confirm with button 6 *"Enter"*.
   3. **Note the device IP address**.
3. **Send the "ping command"**
   1. Press the *Windows key* on your PC.
   2. The Start menu appears with the search window.
   3. Enter the command *"cmd"* in the search window and confirm with the *"Return key"*.
   4. The *"Windows input prompt"* appears.
   5. Enter the command *"ping"* (then a ***space***) with your previously noted device IP address (e.g. *"ping 192.168.1.116"*).
      Note: Leave off the zeros at the start of the 3rd block!
   6. Confirm with the *"Return key"*.
   7. If the "ping command" reaches the device, a positive response will be implemented.

NOTE!
Entering the IP address of your device in a web browser (e.g. *"http://192.168.1.116"*) leads to the device homepage and so this checks the connection.

6 DHCP mode "*OFF*" - adjust PC

In networks without DHCP servers it is necessary to set the IP address and the subnet mask yourself. The gateway address is not required for the configuration.
You require administrator rights for your PC and must set the DHCP communication protocol (DHCP mode) of the device to **"*OFF*"** beforehand (see installation manual).

Example:
Device IP address: 192.168.1.116
Subnet mask: 255.255.255.0

In this case, set the computer as follows:
IP address: 192.168.1.117
Subnet mask: 255.255.255.0

In order to **allocate an IP address for the PC** e.g. for a direct connection between the PC and your device, please proceed as described up to and including point 8, as described in step 4 **"Checking the IP address via the Control panel"**.

Then proceed as follows:
1. Click on the *"Properties"* button in the *"Local area connection status"* window.

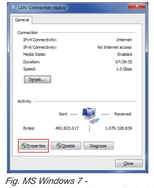


Fig. MS Windows 7 - "Local area connection status" window

2. The *"Local area connection properties"* window appears.

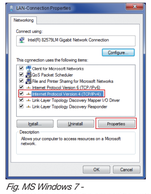


Fig. MS Windows 7 - "Local area connection properties" window

3. Select the *"Internet protocol version 4 (TCP/IPv4)"* option in the *"Local area connection properties"* window and then click on the *"Properties"* button.
4. The *"Internet protocol version 4 (TCP/IPv4) properties"* window appears.

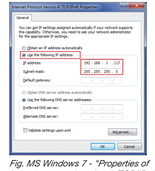


Fig. MS Windows 7 - "Properties of internet protocol version 4 (TCP/IPv4)" window

5. Select the *"Use the following IP address"* option and enter the *"Fixed IP address"* (and if necessary *"Subnet mask"*) of your PC.
6. Click on "OK".

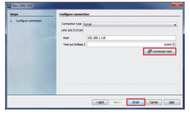
7 GridVis® software settings

Install the GridVis® software on your computer and proceed as follows:

Create a new project:
1. Select *"File"* > *"New project"*. For existing projects, select your project under *"File"* > *"Open project"*.
2. The *"New project"* window appears.
3. Click the *"Next"* button under step 1 *"Select project"*.
4. Under step 2 *"Project path"*, select the:
   - *"Project name"*,
   - *"Project path"*.
5. Click on the *"Done"* button.
6. Your project appears on the left in the *"Projects"* window in the working area.

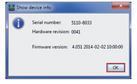


4. Click on the *"Next"* button.
5. The *"Configure connection"* step appears in the window.



Enter the new device into the project:
1. Select *"File"* > *"New file"*.
2. The *"New file"* window appears.
3. Under step 1 *"Select file type"*, select the *"File type"* of your device in the *"Measurement devices"* category.

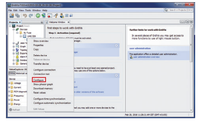
6. Select *"Connection type"* > *"TCP/IP"* in the selection list and enter the IP address of your device in the *"Host"* field (see installation manual).
7. Click on the *"Connection test"* button.
8. If the connection test is successful, the *"Display device information"* window appears with the serial number, hardware version and firmware version.
9. Click on the "OK" button.



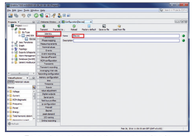
10. Exit the *"Add new device to the project"* step by clicking on the *"Done"* button.
11. Configuring your device (see following steps).

8 GridVis® software - device configuration

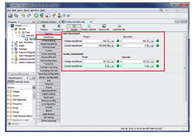
Basic settings
1. Open the context menu for your device with the right mouse button:
   - In the window *"Projects"* > *"Your project"* > *"Devices"* > *"[By device type"* > *UMG 509* > *"Device x"*.



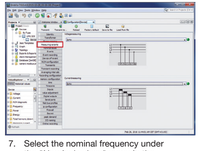
2. Click on the *"Configuration"* menu item in the context menu.
3. The *"Configuration [device x]"* window appears in the right half of the working area.
4. Enter your individual device name in the *"Name"* field under the *"Identity"* menu of the *"Configuration"* window.

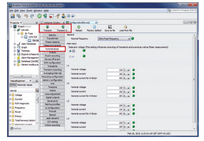


5. Enter the voltage and current ratios in the input fields under the *"Transformers"* menu in the *"Configuration"* window.



6. Select the connection variant for the voltage and current measurement of your device (see user manual/installation manual) in the selection lists under the *"Connection variants"* menu in the *"Configuration"* window.



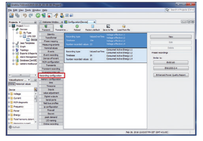


NOTE!
In order to avoid data loss, save your device configuration changes with the *"Transfer"* or *"Transfer to"* buttons!

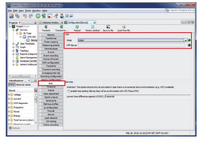
7. Select the nominal frequency under the *"Nominal values"* menu in the *"Configuration"* window, in accordance with the existing grid conditions. In order to identify events (over/undervoltage and overcurrent), enter the nominal values for the phases as references.

9 GridVis® software - recording settings

Under *"Recording configuration"* you can check and configure which recordings the measurement device should save if required. A record holds a measured value or the mean value of the measured value.



In order to be able to compare recordings of transients and events with those from other measurement points, activate the NTP mode under the *"Time"* menu and enter an NTP time server.



NOTE!
The GridVis® device configurations and recording settings represents the basic settings.
The program window shown may, depending on the device, different from the actual display.
Other functions, information and device settings, especially for your device, see the online help of the GridVis® software.

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