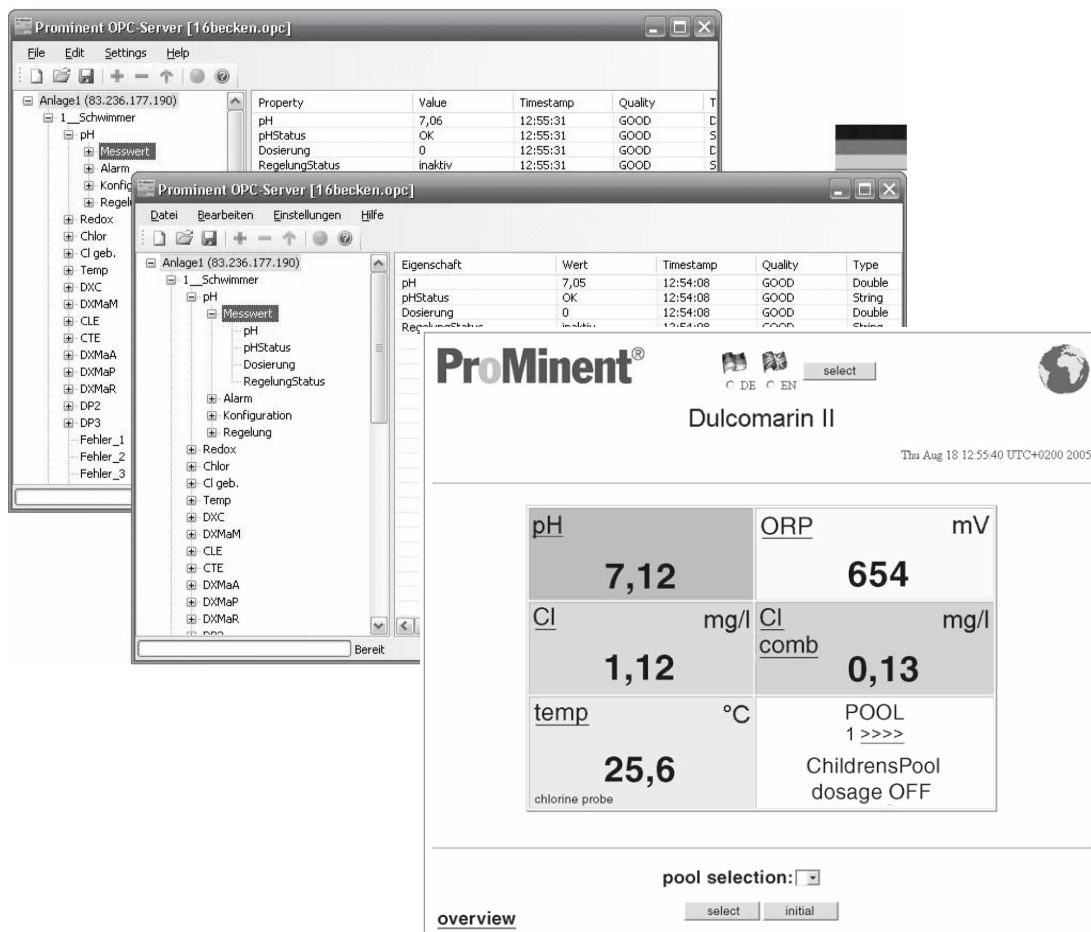


Software manual

ProMinent OPC-Server / Embedded Web Server LAN for DULCOMARIN® II DULCO®-Net

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Please carefully read these operating instructions before use. · Do not discard.
The operator shall be liable for any damage caused by installation or operating errors.
The latest version of the operating instructions are available on our homepage.

Further applicable documents

This software manual is only valid in combination with the following operating and supplementary instructions:

- Multi-channel measuring and control system operating instructions DULCOMARIN® II Swimming Pool Controller and Disinfection Controller DXCa Part 2: Operation

General non-discriminatory approach

In order to make it easier to read, this document uses the male form in grammatical structures but with an implied neutral sense. It is aimed equally at both men and women. We kindly ask female readers for their understanding in this simplification of the text.

Supplementary information

Please read the supplementary information in its entirety.

The following are highlighted separately in the document:

- Enumerated lists
- ▬> Instructions
 - ⇒ Outcome of the instructions

Information



This provides important information relating to the correct operation of the system or is intended to make your work easier.

Safety information

The safety information includes detailed descriptions of the hazardous situation.

Windows® XP professional

Reproduction of Windows® XP professional screen-shots with the kind permission of the Microsoft® Corporation.

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1 Embedded Web Server, LAN for DULCOMARIN II DULCO-Net

1.1 About this product



To read out the identity code, press the function key F1 [HELP] in the central menu item.

By use of the Embedded Web Server in the DULCOMARIN® II DULCO®-Net the central unit of the DULCOMARIN® II can be remotely controlled from a PC.

Moreover, the PC can be used to change the setpoints and stop and start dosing.

The central unit of the DULCOMARIN® II and the PC can be linked together via a LAN. Access to the embedded web server is password-protected.

The embedded web server is available with the DULCOMARIN® II DULCO®-Net with identity code characteristic „communication interfaces: 5, 8, 9 Embedded Server, LAN“ in the identity code of the central unit (DXCa__5 1 ____01).

1.2 Network security



WARNING!

Excess chlorine, acidification or hygiene deficits

Possible incorrect operation of the controller due to external attack on the LAN.

Remedy: When connecting to a LAN, ensure there is sufficient security. Observe the basic rules relating to network security.

Protect the embedded web server with 2 secure passwords of maximum character length (use numbers and special characters as well).

The central unit of the DULCOMARIN® II must be protected by secure passwords. The PIN card (order no. 986894), assists in recording multiple passwords.

Usage clause

Before commissioning the DULCOMARIN® II network connection, it must be checked as part of the operator's duty of care, whether the installation can cause particular interactions with existing data processing systems.

In addition, the central unit of the DULCOMARIN® II must be protected against unauthorised access by the entry of secure passwords and the DULCOMARIN® II Web server by the entry of two secure passwords. If the customer does not enter a secure password, then he releases ProMinent from any claim for damages, which can be traced back to unauthorised or incorrect data transfer and data utilisation.

The operator is responsible for ensuring appropriate backing up of existing data prior to first commissioning and during ongoing operation. In the event of a suspected error all conceivable protection measures must be taken.

ProMinent is not liable for damages due to force majeure (civil disturbances, war, natural disasters) or arising from other events which are not the responsibility of ProMinent (power cut, traffic congestion, maintenance or repair work of malfunctions of IT systems and Internet connections).

1.3 Installation and set-up

i Microsoft® Internet Explorer is a registered trademark or trade name of the Microsoft® Corporation in the USA and/or other countries.

PC requirements

- Browser (e.g. Microsoft® Internet Explorer): must be running
- Network card: must be fitted

Firstly physically connect the DULCOMARIN® II central unit to the PC, as described in the following chapters.

1.3.1 Via a direct connection

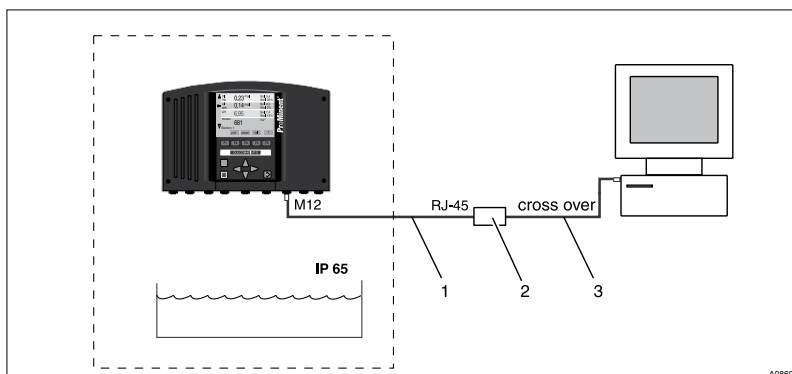


Fig. 1: Direct connection of the DULCOMARIN® II and PC

The DULCOMARIN® II can be directly connected to the PC, using the LAN M12-RJ45 patch cable (1) together with a LAN coupler (2) and a cross-over cable (3).

Installation

i LAN M12-RJ45 patch cable, necessary for connection of the DULCOMARIN® II (contained in the scope of supply).

The M12 threaded connector of the LAN M12-RJ45 patch cable is only moisture-tight when tightened up. Therefore in wet areas, protect the M12 connector of the DULCOMARIN® II with the supplied protective cap until the LAN patch cable is properly connected.

If the DULCOMARIN® II is connected to the PC via the LAN cable, then the LAN LED illuminates on the DULCOMARIN® II (the rightmost of the four LEDs).

Installation equipment	Part no.
LAN M12 - RJ45 patch cable, 5.0 m	in the scope of supply
LAN M12 - RJ45 patch cable, 10 m	1026716
LAN RJ45 patch cable, cross-over, 3.0 m	1027859
LAN coupler, RJ45	1027860

Adjustment



NOTICE!

You can operate the DULCOMARIN® II with only one password.

Use two passwords to provide stronger protection of the DULCOMARIN® II. One password each for read and write access.



You can protect the „Embedded Web Server“ with two passwords. You can set up a maximum of 8 users (also use the maximum number of characters for this purpose).

Under the [WEB] tab for passwords, you can set under [Access], whether the password only allows [Read], or [Write] access or both. Using the [UP] and [DOWN] keys you can select the desired characters.

1. ➤ Change to the central unit of the DULCOMARIN® II by pressing the [ENTER] key of the continuous display in the central menu item.

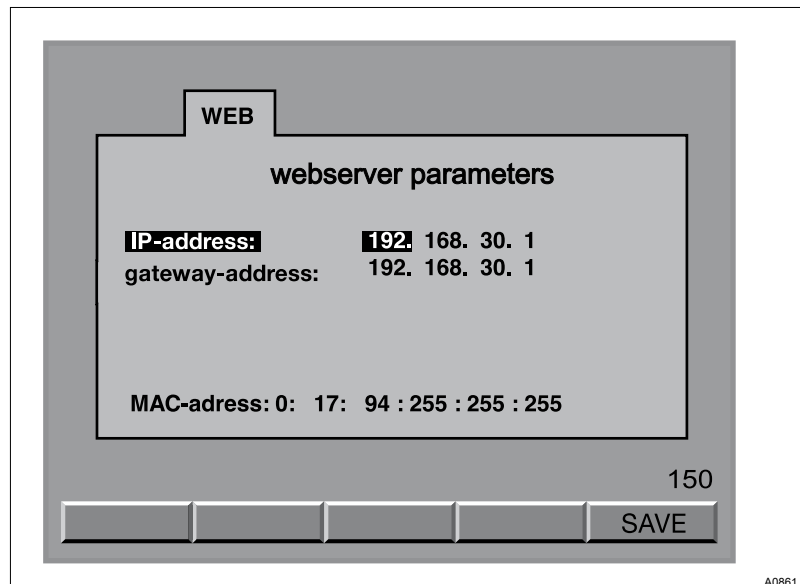


Fig. 2: Web server settings IP address (DULCOMARIN® II)

2. ➤ From the central menu item, press F4 [CONFIG] and F2 [OPTION] to call up the [WEB] tab
3. ➤ Check the IP address of the DULCOMARIN® II [192.168.30.1]. The gateway address must be identical to it for this type of installation

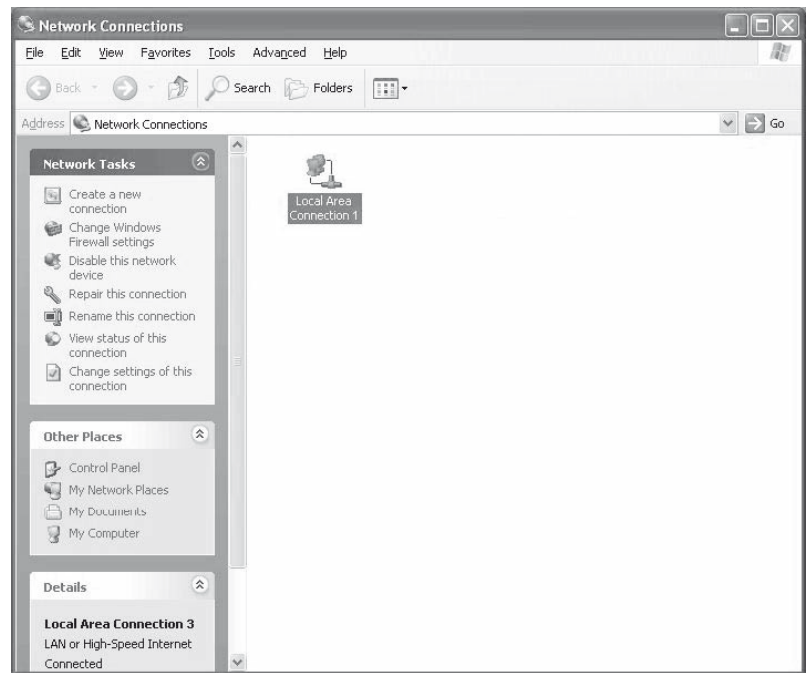
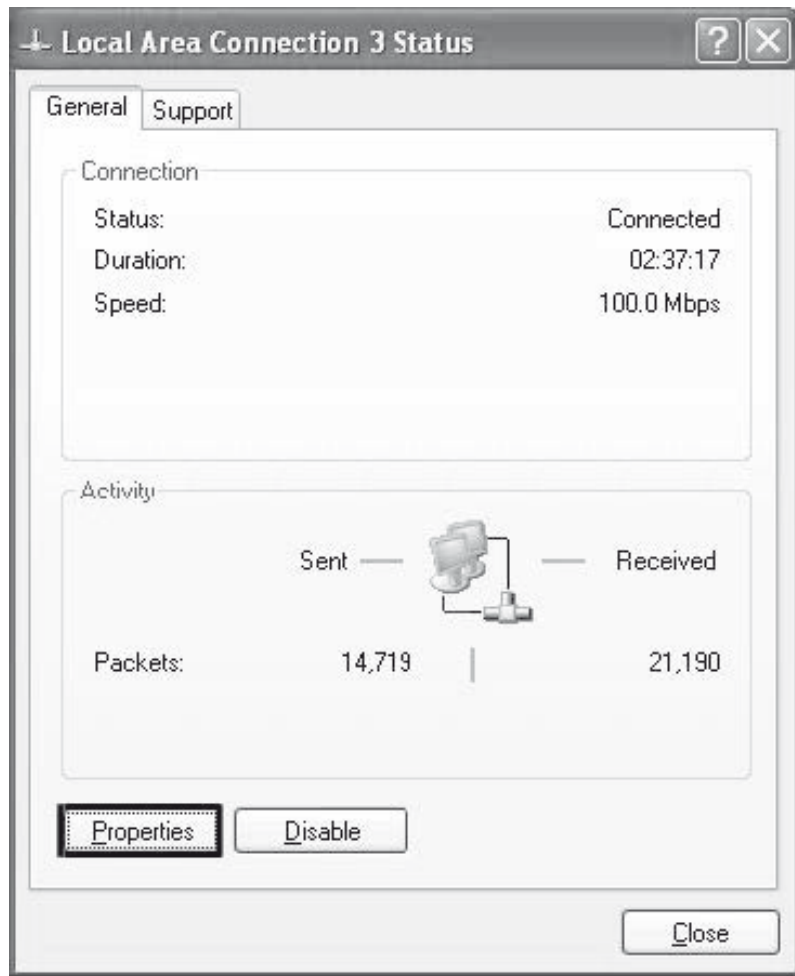


Fig. 3: [Network connections]

4. ➔ Access the PC IP settings menu (see the documentation for your PC operating system).

For example, the path for Microsoft® Windows XP Professional SP2 is: [Start] ➔ [Control Panel] ➔ [Network and Internet Connections] ➔ [Network Connections].

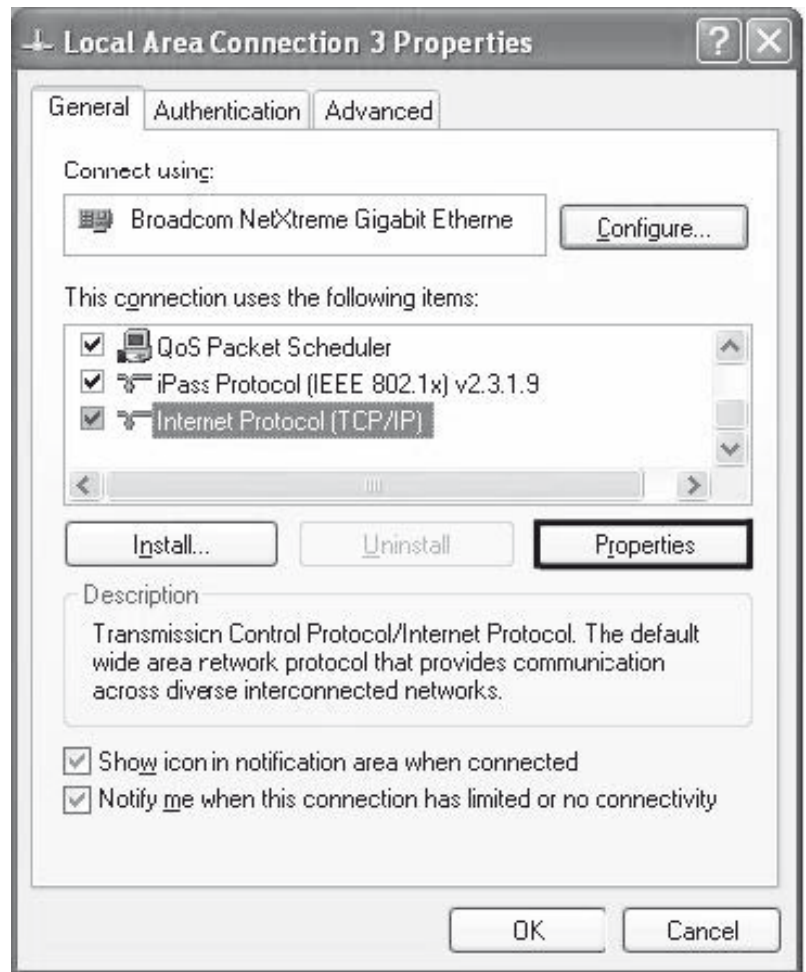
5. In this Window click on the icon [LAN or High-Speed Internet]
⇒ [The status of the LAN connections] appears under [General].



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Fig. 4: Status of LAN connections.

6. In this Window click on the *[Properties]* ➔
⇒ *[The LAN connection properties]* appear.



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Fig. 5: LAN connection properties.

7. In this Window select *[Internet Protocol (TCP/IP)]*

8. Click on *[Properties]*
 ⇒ *[The Internet Protocol (TCP/IP) properties]* appear

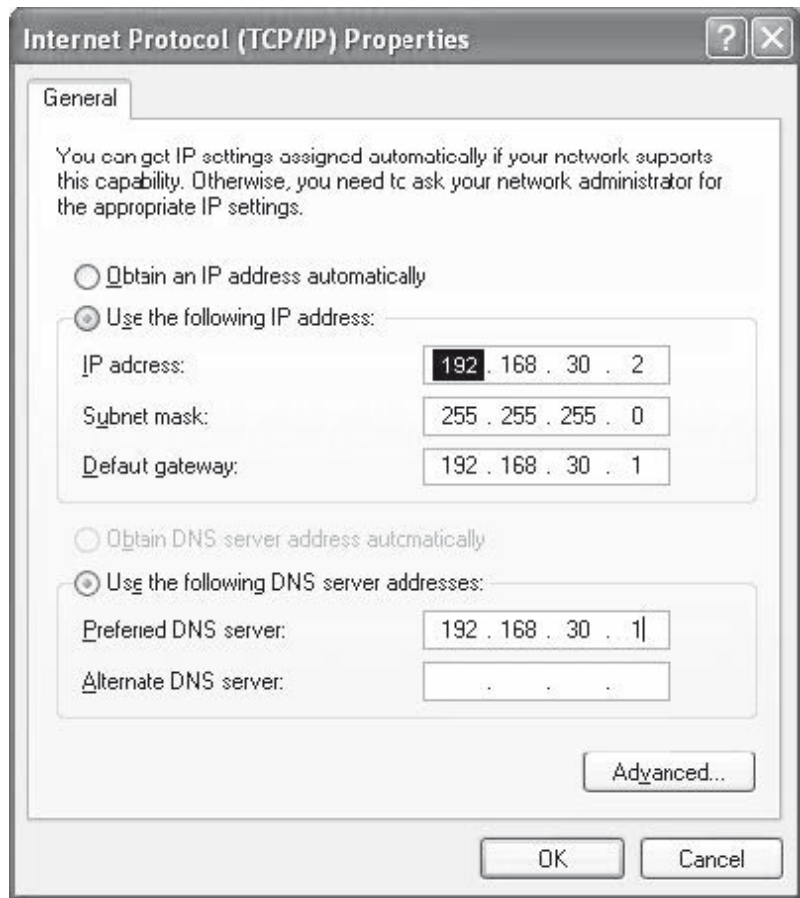



Fig. 6: Internet Protocol (TCP/IP) properties

9. Enter the following values in this window:
 - *[IP address]: [192.168.30.2]* (Note here that the *[2]* at the end must be different from the corresponding value of the IP address of the DULCOMARIN® II in this position)
 - *[Subnet mask]: [255.255.255.0]*
 - Do not change the *[Default gateway]*. The *[Default gateway]* is dependent on your network.
10. Click *[OK]*.
11. Close all the Control Panel windows
12. Change to the DULCOMARIN® II to the *[WEB]* tab and press the F4 key *[PASSW]* to access Password entry
- 13.

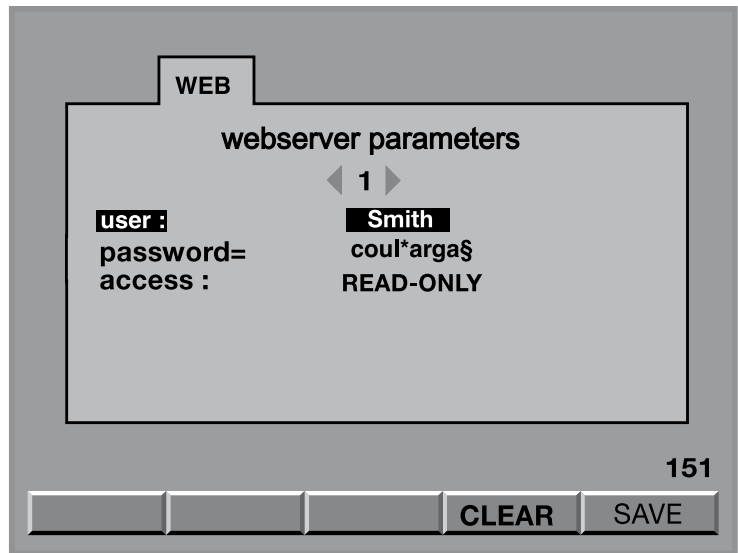


You must enter a User and Password that differ from the default settings for the DULCOMARIN® II.

To do this, press the *[ENTER]* key, then use the arrow keys to select the characters

Press the *[ENTER]* key again

14. Then press F5 *[SAVE]*
 ⇒ otherwise the entries are lost.



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Fig. 7: Web server settings Password (DULCOMARIN® II)

15. From the central menu item, press F4 [CONFIG] and F2 [OPTION] to call up the [WEB] tab.

Press the F3 [RESET] key to activate the changed data.

⇒ The system restarts.

Results checking



If you have successfully installed and adjusted everything up until now, proceed as follows:

1. ➤ Open the PC browser (e.g. Microsoft® Internet Explorer)
2. ➤ Then in the address line enter the IP address of the DULCOMARIN® II: [192.168.30.1]
 - ⇒ an authentication window appears.
3. ➤ Enter the username [User] and password [Password] in the authentication window
 - ⇒ The web interface of the DULCOMARIN® II with the continuous display appears on the PC screen

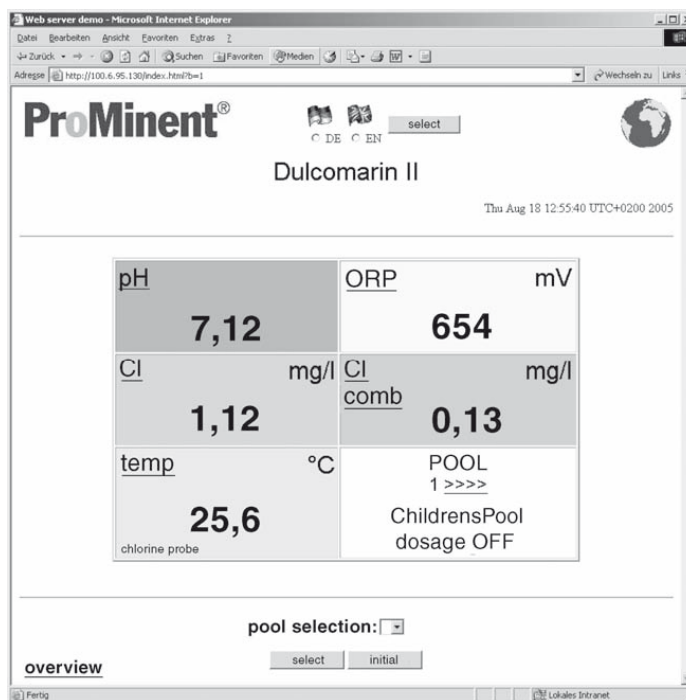


Fig. 8: Web interface (DULCOMARIN® II)



If the web interface does not appear:

Check that Microsoft® Internet Explorer is not using a proxy server. In the Browser under [Tools] ➤ [Internet options] ➤ tab: [Connections] ➤ [LAN settings] check that the [Proxy server] check box is not ticked. If it is, then remove the tick and exit the menus by clicking [OK] and then re-enter the IP address of the DULCOMARIN® in the address line and click [Change to].

1.3.2 Via a LAN

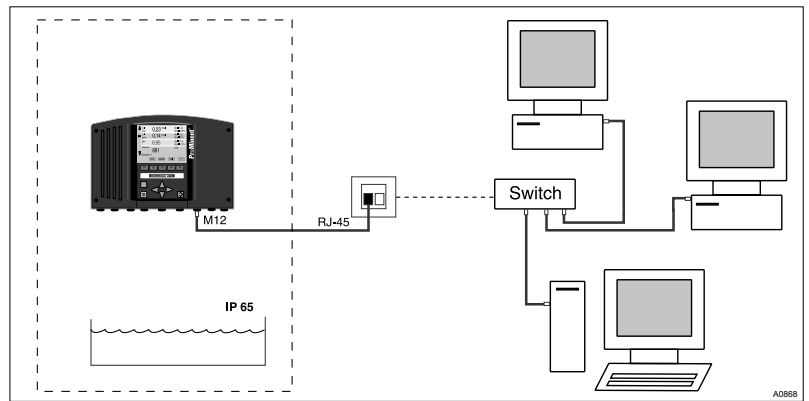


Fig. 9: Connection of the DULCOMARIN® II and PC via a LAN

The DULCOMARIN® II can be connected to the PC like a normal web server.



NOTICE!

Only the network supervisor (specialist) who is normally responsible for the LAN may make the connection.

Only he will have sufficient knowledge of the LAN and the necessary specialist know-how.



The following text contains information about the DULCOMARIN® II that will only be needed by network specialists to install and set it up.

Installation



NOTICE!

You can operate the DULCOMARIN® II with only one password.

Use two passwords to provide stronger protection of the DULCOMARIN® II. One password each for read and write access.



You can protect the „Embedded Web Server“ with two passwords. You can set up a maximum of 8 users (also use the maximum number of characters for this purpose).

Under the [WEB] tab for passwords, you can set under [Access], whether the password only allows [Read], or [Write] access or both. Using the [UP] and [DOWN] keys you can select the desired characters.



LAN M12-RJ45 patch cable, necessary for connection of the DULCOMARIN® II (contained in the scope of supply).

The M12 threaded connector of the LAN M12-RJ45 patch cable is only moisture-tight when tightened up. Therefore in wet areas, protect the M12 connector of the DULCOMARIN® II with the supplied protective cap until the LAN patch cable is properly connected.

If the DULCOMARIN® II is connected to the PC via the LAN patch cable and an Ethernet socket is connected to the network switch, the LAN LED then illuminates on the DULCOMARIN® II (the rightmost of the four LEDs).

Installation equipment	Part no.
LAN M12 - RJ45 patch cable, 5.0 m	in the scope of supply
LAN M12 - RJ45 patch cable, 10 m	1026716

1. ➤ Change to the central unit of the DULCOMARIN® II by pressing the [ENTER] key of the continuous display in the central menu item.
2. ➤ From the central menu item, press F4 [CONFIG] and F2 [OPTION] to call up the [WEB] tab

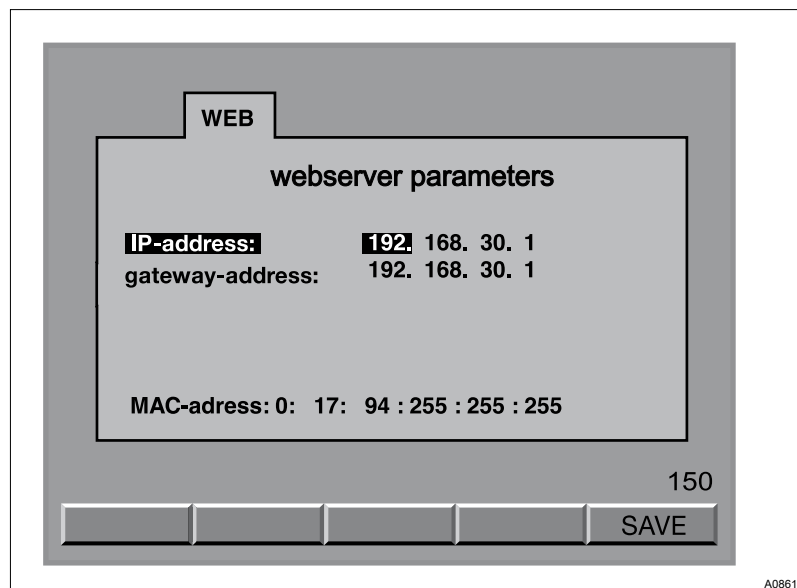


Fig. 10: Web server settings IP address (DULCOMARIN® II)

3. ➤ The tab WEB indicates:
 - the IP address of the DULCOMARIN® II (ex works: 192.168.30.1)
 - the gateway address (ex works: 192.168.30.1)
4. ➤ Use the [ENTER] key and the arrow keys to change the settings
5. ➤ Save the settings by pressing F5 [SAVE]
6. ➤ Access the PC IP settings menu (see the documentation for your PC operating system).

For example, the path for Microsoft® Windows XP Professional SP2 is: [Start] ➤ [Control Panel] ➤ [Network and Internet Connections] ➤ [Network Connections] ➤ [LAN Connections] ➤ [Properties] ➤ [Internet Protocol] ➤ [Properties]

7. Enter the following values in this window:
 - [IP address]
 - [Subnet mask]
 - [Default gateway]
8. Click [OK].
9. Close all the Control Panel windows
10. Change to the DULCOMARIN® II to the [WEB] tab and press the F4 key [PASSW] to access Password entry

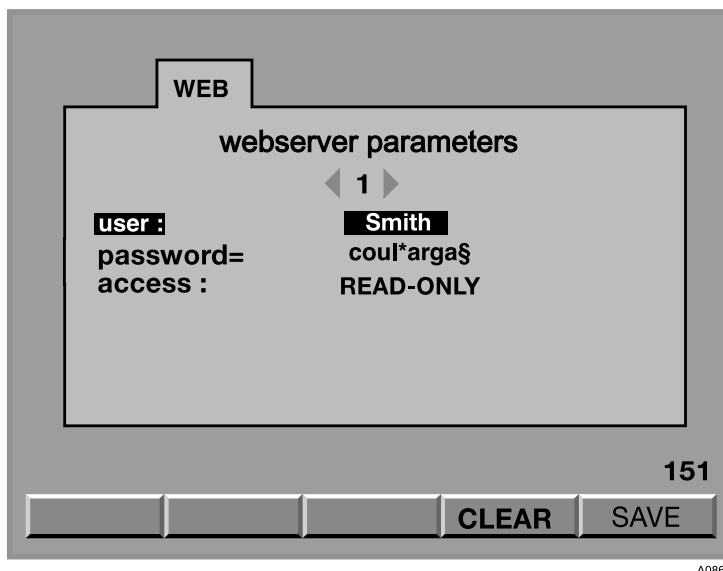


Fig. 11: Web server settings Password (DULCOMARIN® II)

11. Enter the desired user (Username) and password (Password) for the DULCOMARIN® II.
To do this, press the [ENTER] key and use the arrow keys. Press the [ENTER] key again
12. Then press F5 [SAVE]
 - ⇒ otherwise the entries are lost.

1.4 Operation

1.4.1 Operating elements and operating language

Operating elements



If the mouse is faulty, you can also use the [Tab] key and [ENTER] key to navigate.

The web interface is designed for navigating using the mouse. The function of the [ESC] key of the DULCOMARIN® II acts as a link [back] (jumps up in the operating menu hierarchy).

Setting the operating language

1. Jump to the web interface in the continuous display
2. Select the operating language using the radio buttons beneath the two flags.
3. To make a selection press the [Select] key

1.4.2 Layout of the operating menu

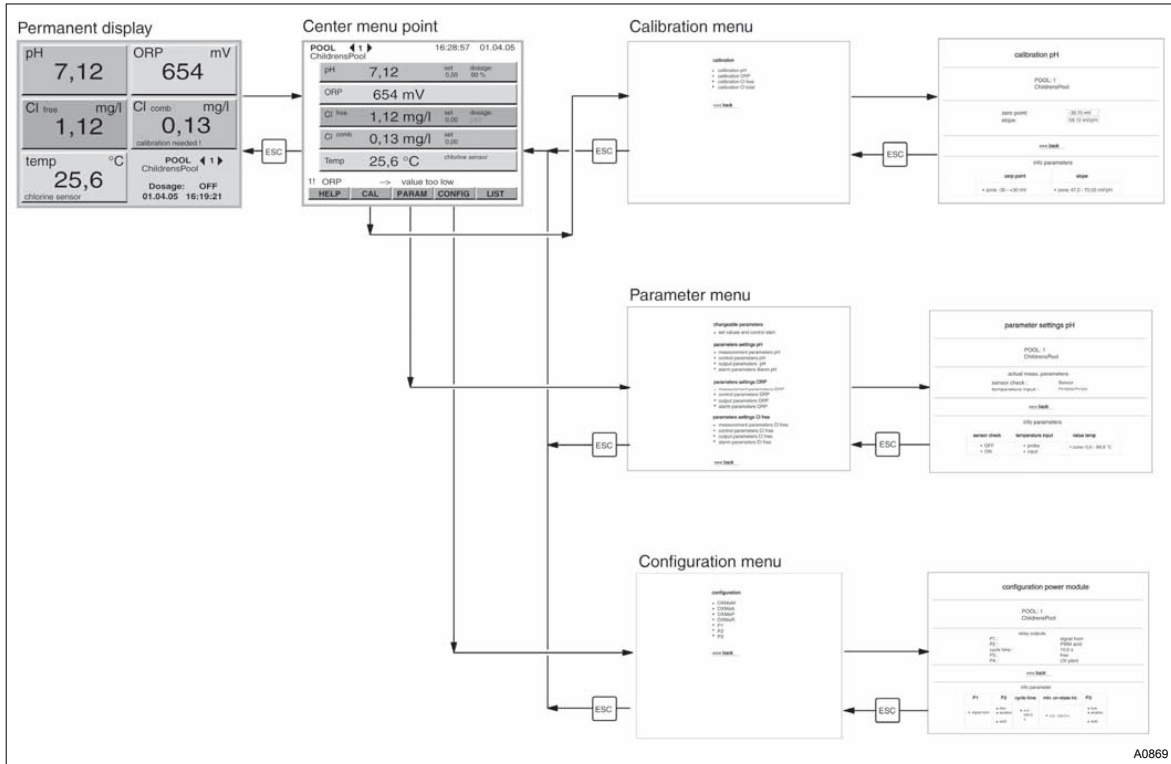


Fig. 12: Layout of the web interface operating menu

The layout of the web interface operating menu is essentially the same as the layout of the layout menu of the DULCOMARIN® II itself.

However it is also possible to jump directly to the parameter configuration of a measured variable directly from the central menu item (roughly analogous to the measured variable tabs).

1.4.3 Read



If the following message appears [Change not possible ...], then someone is operating the device directly from the operating menu.

The continuous display and the central menu item of the web interface are equivalent to their counterparts in the DULCOMARIN® II.

They display almost the same number of instantaneous measured values, control variables and also the dosing state for a certain pool. Here it is also possible to select another pool.

Only with *[Recorder active]*. At the bottom left of the continuous display the link *[System overview]* appears. The allocated page shows the measured values for all pools (actual values), the setpoints and the control state (updated every 5 minutes).



*Error messages only appear in the error list [LIST].
The opened error list does not update automatically. Use the browser [Update] function to manually update the error list.*

Time and date differences between the web interface and DULCOMARIN® II are possible (for example when changing over to summer time). The time and date displayed originate from the PC, not the DULCOMARIN® II.

The DULCOMARIN® II automatically updates the displayed values every 20s. The values can also be manually updated using the browser [Update] function.

To change to the central menu item, you must click any link in the continuous display.

In the central menu item the operating menu branches out.

The following displays of the web interface subdivide the data in a manner analogous to the DULCOMARIN® II into:

- Calibration
- Parameterisation
- Configuration

Within the data displays, the data divides into two areas:

- The top area shows the set parameters
- The bottom area shows the value ranges of the parameters

Only the *[Setpoint Setting ...]* display has a middle area for the settable parameters.

calibration pH

POOL: 1
Childrens Pool

zero point:	-39,70 mV
slope:	59,12 mV/pH

--<<< back:--


info parameters:


zero point:	slope:
•zone: -30 - +30 mV	•zone: 47,0 - 70,00 mV/pH

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Fig. 13: Areas of a display (DULCOMARIN® II): set parameters - top, value ranges - bottom

1.4.4 Write (Change)

 The set value only becomes effective upon clicking the key [Select].

 If the following message appears [Change not possible ...], then someone is operating the device directly from the operating menu.

In the display [Setpoint setting...] the control state can be changed and the setpoints adjusted.

1.5 Accessories

	Part no.
LAN M12 - RJ45 patch cable, 5.0 m	1026715 (in the scope of supply)
LAN M12 - RJ45 patch cable, 10 m	1026716
LAN RJ45 patch cable, cross-over, 3.0 m	1027859
LAN coupler, RJ45	1027860
LAN adapter IP67 DXC, complete	1024835
PIN card	986894

2 Manual ProMinent OPC-Server

2.1 OPC Foreword

Purpose of the manual

This user manual forms part of the documentation for the ProMinent OPC server software. The purpose of the manual is to guide the user through:

- Software installation
- Software commissioning
- Software configuration

Manual revision

The manual revision is 31/03/2011.

Extent of validity of the manual

The manual applies to the ProMinent OPC-Server Version 1.0.4.1

2.2 Introduction



You can find more information about OPC technology under: www.opcfoundation.org

2.2.1 What is OPC?

OPC stands for Openness, Productivity, Collaboration (formerly OLE for Process Control) and is used to describe a uniform software interface independent of specific manufacturers.

OPC Data Access (OPC DA) is based on Windows technology COM (Component Object Model) and DCOM (Distributed Component Object Model).

OPC XML, by contrast, is based on the internet standards XML, SOAP and HTTP.

2.2.2 What is DCOM?

For communication between individual applications, OPC currently mainly uses Microsoft DCOM technology (Distributed Component Object Model). DCOM extends COM by adding network functionality.

The installation CD also includes a more detailed document from the OPC-Foundation with fundamental information on the use of DCOM under Windows XP and system configuration.

2.2.3 What is XML-DA?



Advice on operation with XML-DA

The OPC server cannot be started via the OPC client if XML-DA is used. This is technically not feasible.

The OPC server should also not be started using DCOM, if XML-DA is to be used, as the ending of all COM-DA clients also closes the OPC server.

To use XML-DA, manual starting of the OPC server is recommended.

Communication over DCOM is limited to the local network.

Data exchange via XML enables communication using the platform independent SOAP protocol via Internet/intranet. OPC-XML-DA represents the first creation of a web service based interface.

The functionality is similar to the normal data access interface, which is the first, and remains the most important OPC interface.

Using the web service, OPC is also available on other platforms such as Linux. Many manufacturers of OPC servers initially developed adapters, which simply map OPC XML-DA calls to the existing COM OPC DA servers.

In contrast to DCOM, web services use port 80 (HTTP) which also makes its easier to communicate through firewalls or to tunnel data traffic.

2.3 ProMinent OPC-Server installation

2.3.1 Operating diagram and operating elements

System requirements:

- Supported operating systems: Windows 2000 Service Pack 3; Windows Server 2003; Windows XP Service Pack 2; Windows Vista; Windows 7
- Windows Installer 3.0
- .NET Framework 2.0
- 512 MB RAM is recommended as a minimum.

The OPC server supports the following OPC standards:

- Data access DA, DA2, DA3
- XML-DA (must be activated by USB hardlock)

Scope of installation:

- The installation requires approximately 3.5 MB.
- In addition, several OPC system components such as Softing License Manager are installed.

2.3.2 Installation

Start the setup by double-clicking [*OPCServer-Setup.exe*]. A wizard guides you through the installation step by step. If not already installed, . [*.NET Framework 2.0 setup*], which is included on the installation CD, will be run during the installation process.

2.4 Quick start

2.4.1 Basic principles

The OPC server essentially comprises two components; namely the actual OPC Server which is started by the OPC Client and with which it exchanges data. This is done in operation with a visualisation or soft PLC mainly in the background, i.e. invisible to the user. For the OPC server to exchange data, it must first be configured. To carry this out, the OPC server provides a user-friendly graphical Windows user interface as the second component. Once the OPC server has been configured, the user interface is primarily only needed for commissioning, not for operation using an OPC client.

The configuration and data communication between OPC client and OPC server is accomplished in three consecutive steps:

Starting

- ➔ Start the ProMinent OPC server by double-clicking on the desktop icon or from the start menu under All Programs ➔ ProMinent OPC-Server ➔ ProMinent OPC-Server

Adding a device

1. ➔ Click on the *[+]* icon in the toolbar or select *[Add device]* from the *[Edit]* menu.
2. ➔ In the following dialogue, enter the device name, the required user name, the password as well as the IP address and the port of the device which are required for access.
 - ⇒ Confirm all entries by pressing *[OK]*.

3. ➔

i *The device is now included in the project structure, finally the device configuration is loaded. Loading of the device configuration takes between a few seconds and one minute, depending on the size of the system.*

Saving the project

- ➔ To save the project select *[Save]* from the *[File]* menu or press the key combination *[Ctrl+S]*.
 - ⇒ The configuration is saved as an XML file the file type *[OPC]*.

Linking the OPC client

i *The project structure (OPC namespace) can now be accessed via the OPC client and you can now start to further process the data or portray it using visualisation software.*

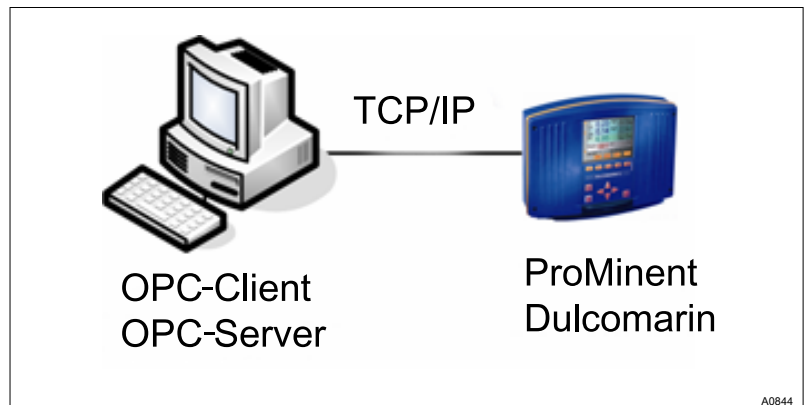


Fig. 14: OPC server and client installed on one PC.

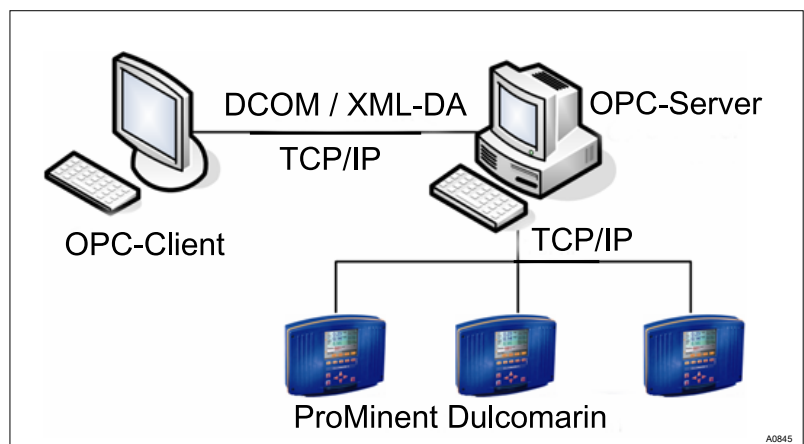


Fig. 15: OPC server and client installed on networked PCs.

2.5 Program functions

2.5.1 Main interface

Configuration of the OPC server takes place in a clearly laid-out window similar to a window used by MS-Windows' Windows Explorer. The portrayal of the devices up to and including the measured values is achieved using a tree structure.

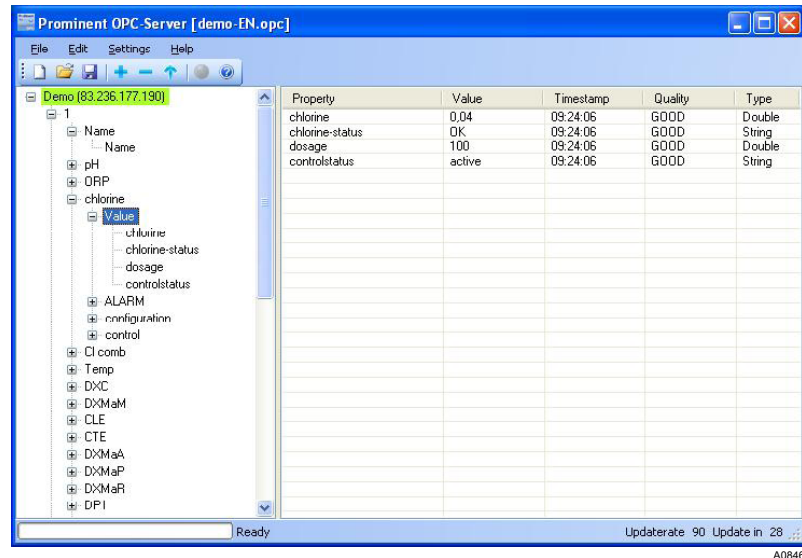


Fig. 16: Main interface

The program window is divided into four areas:

- The menu and toolbar at the top
- The tree structure with devices and their data points are shown on the left
- Details relating to the data points are shown on the right.
- The status bar is shown at the bottom of the window

the devices with their data points are presented in the left window area. Clicking a *[+]* icon expands the tree structure. The selection of possible tool and menu functions changes dependent on whether a device itself or a data point has been selected.

Details relating to the relevant selected data point are shown in the right part of the window. If a group of measured values was selected in the left window area, e.g. *[Measured value]*, the list of the measured values with description, *[Property]*, actual value *[Value]*, timestamp *[Timestamp]*, quality *[Quality]* and data type *[Type]* is displayed in the right window area.

If a measured value itself was selected, its specific properties *[Property]* are shown on the right window side.

[Property] on the right window side identifies the measured value concerned. The column *[Value]* shows the current value for this measured value. The column *[Timestamp]* indicates when this value last changed.

[Quality] indicates how reliable the value is. A *[GOOD]* quality means the value was successfully updated during the last update. If the quality is *[BAD]* the value was not received by the device. The quality *[LAST_KNOWN]* indicates that no data point update has taken place since loading of the configuration and that the measured value thus originates from the locally saved configuration file.

The column *[Type]* shows the data type of the measured value. The data type *[String]* is a simple character string; *[Double]* refers to high internal accuracy floating point numbers. The data types *[Int]* or *[UInt]* may occur infrequently; these are integers in certain value ranges.

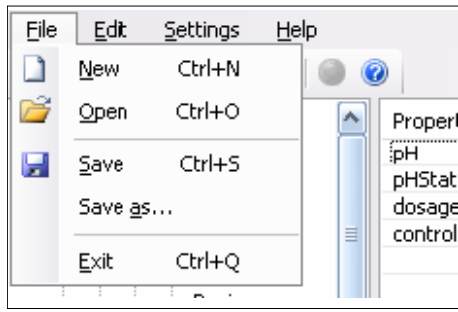
The status of the device is also indicated by the colour highlighting of the device name in the tree view on the left side.

- Green
 - Updating of the data points was successful
- Red

- An error occurred during updating of the data points. There is possibly no longer a connection to the device.

2.5.2 Menu

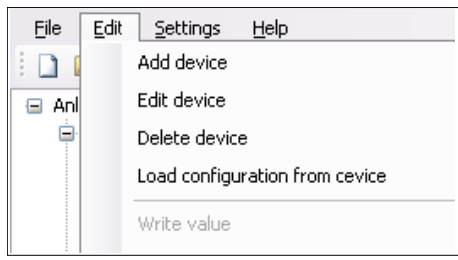
File menu



- New Creates a new project. Unsaved changes are lost
- Open Loads an existing project
- Save Saves the current project
- Save as... Saves the current project under a specified name
- Exit Closes the OPC server

Fig. 17: File menu

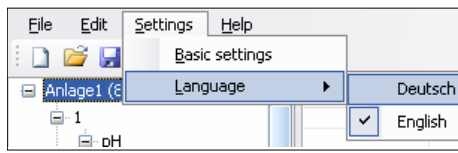
Edit menu



- Add device Opens the add new device dialogue
- Delete device Deletes the selected device from the project
- Load configuration Loads the current configuration of the selected device
- Write value Opens a dialogue to change the value of the data point. Only available for data points with write access
- Read value Starts a ready query for the selected data point

Fig. 18: Edit menu

Settings menu



- Basic settings Opens the Basic settings dialogue
- Language Selects the programming language. The OPC server must be restarted following a language change.

Fig. 19: Settings menu

Help menu











- Contents Opens the help function
- About... Displays program and version information

Fig. 20: Help menu

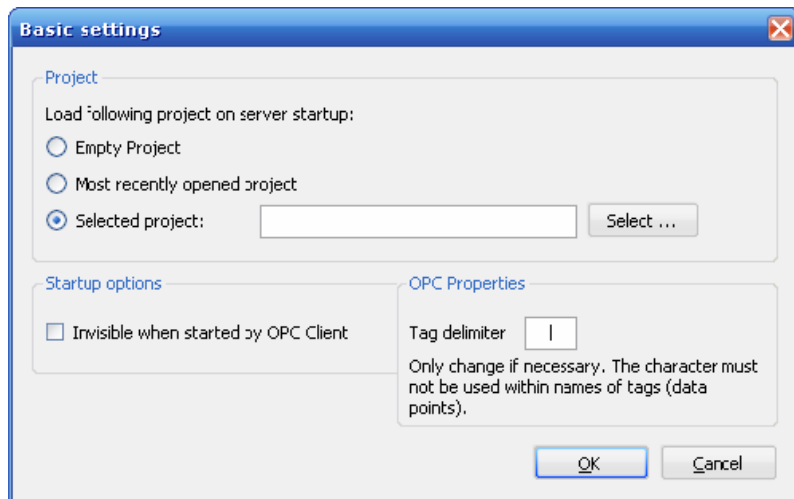
2.5.3 Toolbar



Fig. 21: Toolbar

Icon	Description	Function
	New project	Creates a new project, unsaved changes are lost
	Open project	Loads an existing project
	Save project	Saves the current project
	Add device	Opens the add new device dialogue
	Delete device	Deletes the selected device from the project
	Load device configuration	Loads the current configuration of the selected device
	Access device website	Opens the device website in the web browser.
	Help	Opens the help function

2.5.4 Basic settings



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Fig. 22: Basic settings

In basic settings you can define which project should be loaded when the OPC server is loaded. The default setting is load *[Most recently opened project]*. If this option is selected, the last opened or saved project is loaded. Alternatively you can specify a project which should always be loaded. To do this, select *[Selected project:]* and then click on *[Select...]* to specify the desired project.

The start option *[Invisible when started by OPC client]* allows an invisible start of the OPC server by the OPC client. This makes sense if the user of the system is not to have direct access to configuration of the OPC server via the Windows task bar.

The OPC property *[Tag delimiter]* defines which character is used by the OPC server to separate the names of the data points. Analogously to the *[Backslash (\)]* in a file path the *[delimiter]* must not occur in data points. The *[delimiter]* should only be changed if an OPC client encounters a problem with the basic default setting.

2.5.5 Add device



After adding a device, the project must be saved and the OPC server restarted.

Only after the OPC server is restarted is the OPC namespace regenerated and the data points of the new device updated so that they are visible to the OPC client.

Device settings

Access

Device name

Username

Password

Communication

IP-Address Port

Changes take effect after server restart only

OK Cancel

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Fig. 23: Add device

In the add device dialogue, only the *[Port]* is specified by default. You can choose any device name. However the *[Device name]*, should not be changed after commissioning because otherwise the data points in all linked OPC clients would have to be adapted to match it.

The *[Username]* and *[Password]* of the device must be entered as otherwise no access to the device data points is possible. The same applies to the device *[IP-Address]*. Instead of the *[IP-Address]* you can also enter the host name of a device, provided a host name was assigned in the network.

2.5.6 Edit device



After editing a device, the project must be saved and the OPC server restarted.

Only after the OPC server is restarted is the OPC name-space regenerated and the changes visible to the OPC client.

Fig. 24: Edit device

In the edit device dialogue, the device settings are already specified. The *[Device name]* should only be changed if no OPC clients have already been configured with data points.

Otherwise changing the device name means that OPC clients will no longer be able to access the device values. For security reasons the device *[Password]* is shown only as dots.

Instead of the *[IP-Address]* you can also enter the *[Host name]* of a device, provided a host name was assigned in the network.

2.5.7 Delete device



After deleting a device, the project must be saved and the OPC server restarted.

Only after the OPC server is restarted is the OPC name-space regenerated and the device deletion visible to the OPC client.

1. ➤ Select the device for deletion from the left area of the program window
2. ➤ Click on *[Delete device]* in the *[Edit]* menu or click the *[-]* icon in the toolbar
3. ➤ In response to the query as to whether you really want to delete the device, click on *[Yes]*

2.5.8 Program information (About...)



Fig. 25: Program information (About...)

You can call the dialogue [About...] from the [Help] menu. The program version and the versions of the OPC toolkit libraries are displayed. If you require technical support, all three version numbers must be given.

2.5.9 Status bar

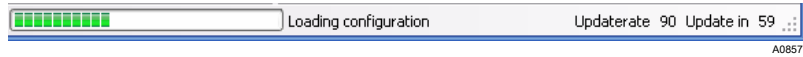


Fig. 26: Status bar [Loading configuration]

The status bar shows the present program activity.

- The progress bar shows the progress of the current process
- A description of the current work process is displayed directly alongside the bar. If an error occurs during a process, an error message is displayed here.
- The right side of the status bar displays:
 - The actual update rate of the selected device
 - A countdown to the next value update

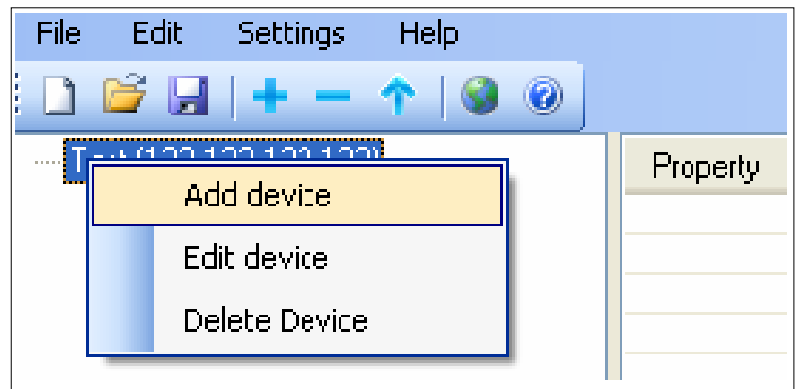
Tab. 1: Possible status messages in the status bar:

Status message	Explanation
Ready	The OPC server is ready for operation
Loading configuration	The configuration is being loaded by a device
Processing data	The configuration or data points of a device are being processed
Server available after restart	Changes were made to the OPC server configuration and a restart is necessary to implement the changes. Unsaved changes must be saved prior to the restart
Updated data points	The data points are loaded by the device and are now updated in the OPC server
Logon	The OPC server tries to logon to a device
Logout	The OPC server logs off from a device
Error when accessing the device	The OPC server could not access the device. For possible reasons, please read troubleshooting ↗ Chapter 2.6.1 „Error messages“ on page 30 in the appendix

2.5.10 Context menus

Device menu

Right-clicking a device in the tree view displays the corresponding context menu.



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Fig. 27: Context menu - device menu

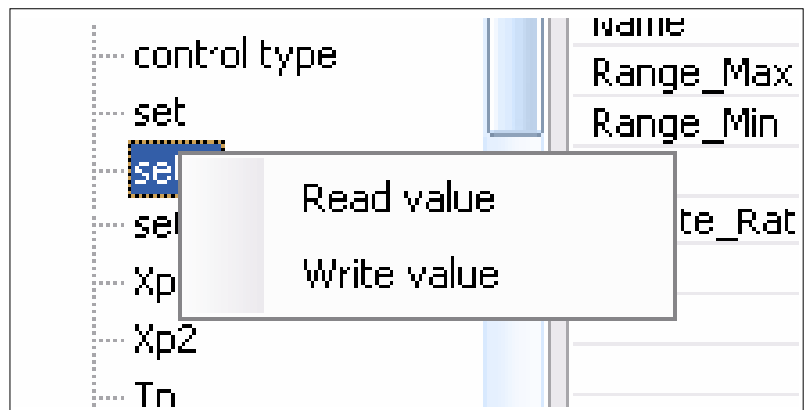
You can select the following options from the context menu:

- [Add device]
- [Edit device]
- [Delete device]

Here, Edit and Deleter refer to the currently selected device, which Add adds a new, independent device.

Data point menu

Right-clicking a data point in the tree view displays the corresponding context menu.



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Fig. 28: Context menu - data point menu

You can select the following options from the context menu:

- [Read value]
- [Write value]

[Write value] is only available if the data point has the [rw] attribute and thus can be written to the device.

2.6 Appendix

2.6.1 Error messages

Message	Meaning	Source
There already exists a device with this IP address and port	The configuration already includes a device with this IP address and port. There can be only one device with the same IP/port combination per configuration.	Dialogue Add / Edit device
Enter an IP address	The input field for the IP address is blank. The device requires a valid IP address to enable communication with it.	
Enter a device name	The input field for the device name is blank. A unique device name is required for the device to be addressed through the OPC client.	
Enter a port. (standard port: 80)	The input field for the port number is blank. An IP address and the corresponding port are always required for communication. If you are unsure, used the default value of 80.	
Could not open the file <i>[example.opc]</i> .	The system tried to load a project, but the specified file does not exist. Check the program settings for the project to be loaded.	Upon program start, it a project is to be loaded.
Invalid IP or host address.	The IP address or the host name entered in the input field for the device IP address is invalid or contains invalid characters. A valid IP address consists of four number groups between 0 and 255 each of which are separated by a dot each. (Example: 192.168.172.5)	Dialogue Add / Edit device
Port must be a number between 1 and 65535.	The entered port number is outside the valid range. Valid port numbers can only be set in the range 1 to 65535.	
There already exists a device with this name	The device name used already exists in the configuration The name for each device in the configuration must be unique, please select another name.	
Error when accessing the device	This message is displayed if there were problems accessing the device. Possible causes: the device is not switched on, the IP address at the device is incorrectly configured, the IP address in the server is incorrectly entered or the network is not available.	Main program window in the status bar
The OPC namespace was already initialised. A new initialisation is only possible after reboot of the server.	The list of the data points or the data point structure in the OPC server can only be generated once upon starting of the OPC server. Thereafter no further changes are possible. To load another project and activate it in the OPC server, the OPC server must be restarted with this project.	Create new project, load project
A client is still connected. Exiting the server may cause problems in the client or server. Do you want to exit?	The server should in principle only be exited if no OPC clients are connected to it. However it may happen than an OPC client is unexpectedly closed and no message has been received by the OPC server to inform it. In this case, the server can be exited by selecting the option <i>[Yes]</i> .	Message when closing the OPC server
One or several clients are still connected. Changes to the configuration are no longer possible.	Changes to the OPC server configuration are no longer possible, once OPC clients are connected to it. Please first disconnect all OPC client connections and restart the OPC server to make changes to the configuration.	Create new project, open project, add device, remove device, edit device, load device configuration
The application has to be rebooted for the change in language to become effective.	A change in the language settings can only be activated after restarting the application. Please restart the OPC server to activate the changed language setting.	Menu settings / Language

2.6.2 Support

Should OPC server problems occur, the trace functionality can be used to make troubleshooting easier for the support team. Support requests should always be accompanied by the files *[trace.txt]* and *[trace.txt.bak]* (if available). In addition, the program version as well as the version numbers of both toolkit libraries should be stated. The version numbers are shown in the Help menu under the option *[About...]*. The trace file is located in the program directory of the OPC server corresponding to the directory specified during installation.

Trace file

Trace output is activated as standard, the trace file is created in the programme directory of the OPC server.

Trace functionality can be activated/deactivated manually:

1. ➤ Open the file *[settings.xml]* in the programme directory of the OPC server using any text editor (e.g. Notepad)
2. ➤ Search for a line reading as follows: `<Trace>>false</Trace>`
3. ➤ Change the setting to *[TRUE]* to activate the trace output.

or

Change the setting to *[FALSE]* to deactivate the trace output.

The trace file *[trace.txt]* is renamed to *[trace.txt.bak]* as soon as the file exceeds 256 KB to prevent any the hard disk become overfull. This overwrites any possibly already existing *[trace.txt.bak]*.

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