Beko METPOINT connect

Manual Revision D

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Change sheet

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А	First edition	4/25/2011	TE
В	Menu File -> delete data removed	5/25/2011	TE
С	Welcome, Support	6/6/2011	TE
D	Analysis: shift report Analysis: dual rate Extended functionalities	4/16/2013	AA

Dear customer,

every year thousands of customers purchase our high quality products. With very good reason:

- Our products offer a very good price/performance ratio. Reliable quality at a fair price.
- With a professional experience of over 20 years, we are able to find the optimal solution for your measuring task.
- Our high quality standards.
- Of course, all of our equipment bears the CE mark required by the EU.
- Calibration certificates, seminars and consulting.
- After the purchase we will not leave you standing in the rain.

Our service ensures rapid assistance for you.

Table of contents

Cha	inge sheet	2
Tab	le of contents	4
Illus	stration Index	5
Tab	le Index	6
1	Introduction	7
2	First Start	7
3	General 3.1 Menu File 3.1.1 Exit 3.2 Menu View 3.3 Menu Extras 3.3.1 Alarm texts 3.3.2 E-mail recipient configuration 3.3.3 SMS recipient configuration 3.3.4 Database configuration 3.3.5 Client - Server communication configuration 3.4 Menu Info 3.4.1 Help 3.4.2 Language 3.4.3 About	88899001111
4	Overview1	2
5	Data 1 5.1 Diagram View 1 5.2 Statistics 1 5.3 Tabular View 1 5.4 Raw Data 2	6 8 9
6	Alarm 2	1
7	Analysis 2	3
8	Alarm Configuration 2	6
9	Support and Service 2	9

Illustration Index

Illustration 1: No database connection	
Illustration 2: Database configuration	. 7
Illustration 3: Connection to Server Lost	. 8
Illustration 4: Client Server Communication	. 8
Illustration 5: Configuring alarm texts	. 9
Illustration 6: E-mail recipient	10
Illustration 7: SMS recipient	10
Illustration 8: Database configuration	11
Illustration 9: Language selection	11
Illustration 10: Draft mode overview	13
Illustration 11: Diagram Explorer	14
Illustration 12: Line Style	15
Illustration 13: Y-axis scaling	15
Illustration 14: Diagram View	16
Illustration 15: Raw data diagram	17
Illustration 16: Moving average	17
Illustration 17: Statistical analysis	18
Illustration 18: Tabular View	19
Illustration 19: Raw Data	20
Illustration 20: Chronological sorting ascending	20
Illustration 21: Filters - Value Name A1-2: A1b	21
Illustration 22: Grouping Name Value	21
Illustration 23: Export	22
Illustration 24: "Duration" sorting, ascending	22
Illustration 25: Filters - Timeset from April 18, 2011	22
Illustration 26: Grouping AreaName, DeviceName, ValueName	23
Illustration 27: Consumption Analysis	23
Illustration 28: Consumption Analysis	25
Illustration 29: Device context menu alarm configuration	26
Illustration 30: Diagram Explorer Alarm Configuration	27
Illustration 31: Alarm configuration, pre-alarm - main-alarm	27
Illustration 32: Alarm configuration, lower/upper limit	28

Table Index

Table 1: Background image	12
Table 2: Editing Overview	12
Table 3: Overviews	14

1 Introduction

With the help of OMClient, the stored measurement values can be visualized and evaluated.

2 First Start

• The first time the application is started a notice will be displayed, stating that a connection to the database cannot be established.

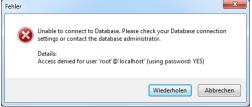


Illustration 1: No database connection

- By pressing the "Retry" button the "database configuration" dialogue is automatically opened.
- The dialogue "database configuration" is filled with the standard parameters for the MySQL database.
 - 【 Configure Database x Name/IP address of the computer MySQL Database Connection Settings where the MySQL database is installed. local Hostname: Port: 3306 ÷ • Port of the MySQL database (default: Database Name: cs_omdatabase 3306 - see Install Guide p. 11) Usemame: root Password: Name of the database (default: ΟК Cancel cs_omdatabase - see Install Guide p. 13) Illustration 2: Database configuration Database User: root Password for the database access (see the Install Guide, p. 13 (default: CS_DB)
- Now you can change the parameters for the MySQL database:

- The dialog for the configuration of the MySQL database connection can be called up at any time via the menu item "Extras -> Database configuration".
- After correctly entering the database configuration the logon dialog will appear. Enter the correct login credentials. The credentials were established with the help of OMServerGUI (see Manual METPOINT connect OMServerGUI p. 14)
- Subsequently a message will appear stating that a connection to the OMServer can not be established:

Warnung	
	Connection to Server lost. The service you have requested is not available at this time. It's possible it may have disappeared by accident and will be back someday, but it's also possible the service admin removed it on purpose and with malice aforethought, and that it will never be seen again. Or maybe it never existed. You will not be able to receive values of the connected devices.
	ОК

Illustration 3: Connection to Server Lost

- Acknowledge the warning by clicking "OK".
- After this the dialogue "Client Server Communication" appears.
 The dialogue is filled with the standard parameters for the Client Server Communication.
- Now you can change the parameters for the Client Server Communication:

Client Server	Communication	J	
Server Endpoin	t Configuration		
Hostname:	localhost		
Port:	47825		
	OK Cancel		•

•	Name/IP address of the computer where the OMServer is installed.
•	Port of the OMServer (default: 47825 - see Manual Beko Soft Online Monitoring ServerGUI p. 13)

Illustration 4: Client Server Communication

• Subsequently restart OMClient.

3 General

Here, the menu items are described that have the same functionality in all views.

3.1 Menu File

3.1.1 Exit

Exit the OMClient.

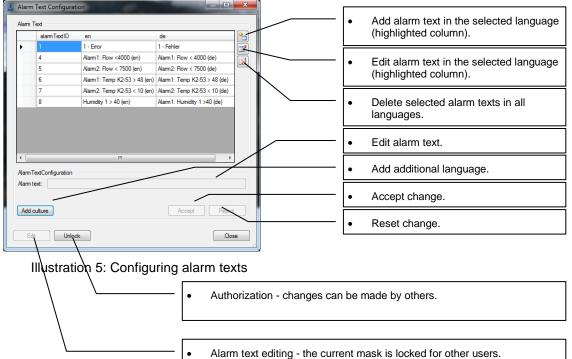
3.2 Menu View

• This menu can be used to switch through the different views.

3.3 Menu Extras

3.3.1 Alarm texts

- With this menu item the mask to define the alarm texts is displayed.
- The alarm texts can also be defined with the OMServerGUI.
- To be able to define alarm texts the user must at least have a level 3 access authorization.
- The AlarmId (alarmTextID) is assigned by the software.
- The alarm texts can also be defined in different languages.
- A further language can be added with the button "add language".



3.3.2 E-mail recipient configuration

• The e-mail recipients can be defined in the following mask.

	1				6
_	name	eMailAddress	alarmTextCulture		
•		onlinemonitoring@gmx.de			
_	Mailreciver2	onlinemonitoring@gmx.de	de		Ĩ
fail Re lame:	cipient Configu	uration civer1			
lame:	Mailre	civer1			
lame:	Mailre Idress: online		_		

Illustration 6: E-mail recipient

- The "Edit" button must be clicked to enable editing. It is checked whether the current mask is already being edited by another user. If so, no changes can be made. If not, the current mask will be authorized for the current user and locked for all other users.
- A language can be assigned to each user. The alerts will be sent in the specified language.

3.3.3 SMS recipient configuration

SMS recipients				
name		phoneNumber	alarmTextCulture	
SMS recipient configu Name: Mobile phone number	:			
	e.g: 00493012	34567 (without space a	nd + or -)	

Illustration 7: SMS recipient

- The "Edit" button must be clicked to enable editing. It is checked whether the current mask is already being edited by another user. If so, no changes can be made. If not, the current mask will be authorized for the current user and locked for all other users.
- A language can be assigned to each user. The alerts will be sent in the specified language.

3.3.4 Database configuration

• In this dialog, the correct parameters for the MySQL database must be entered:

Configure Database	
MySQL Database Connection Settings Hostname: ocelhost Port: 3306	Name/IP address of the computer where the MySQL database is installed.
Database Name: cs_omdatabase Usemame: root Password: **** OK Cancel	Port of the MySQL database (default: 3306 - see Install Guide p. 11)
Illustration 8: Database configuration	 Name of the database (default: cs_omdatabase - see Install Guide p. 13)
	Database User: root
	Password for the database access (see the Install Guide, p. 13 (default: CS_DB)

3.3.5 Client - Server communication configuration

• <u>In this dialogue, the correct parameters for the OMServer must be entered:</u>



- Name/IP address of the computer where the OMServer is installed.
- Port of the OMServer (default: 47825 see Manual Beko METPOINT connect OMServerGUI p. 13)

3.4 Menu Info

3.4.1 Help

• Calls up the Help file (PDF File).

3.4.2 Language

• <u>A dialog for the language selection will be opened:</u>

Available La	nguages		
English			•
		ок	ancel

Illustration 9: Language selection

- The combo box will display all the languages available.
- Restart the application, if there are problems with the display after switching the language.

3.4.3 About

• The current version information will be displayed.

4 Overview

- After the start the "Overview" screen will always be displayed.
- If you are in another view, you can always switch back to the overview through the menu item "View -> Overview".
- This screen can be freely configured by the user.
- Background image: When using a background image, the devices can be positioned on the entire background image - otherwise on the entire screen.

Menu item	Toolbar	Action
Edit -> Wallpaper -> Add	2	Adding a background image
Edit -> Wallpaper -> Delete	2	Deleting a background image

Table 1: Background image

• In the draft mode, devices can be added to the surface and positioned freely. The current measured values are displayed in the device window. An upcoming alarm or incorrect values are highlighted in red.

Menu item	Toolbar	Action
Edit -> Draft		Draft mode on/off
Edit -> Add device	.	Dialog for adding a device is opened. Double-click on the desired device to add it.

Table 2: Editing Overview

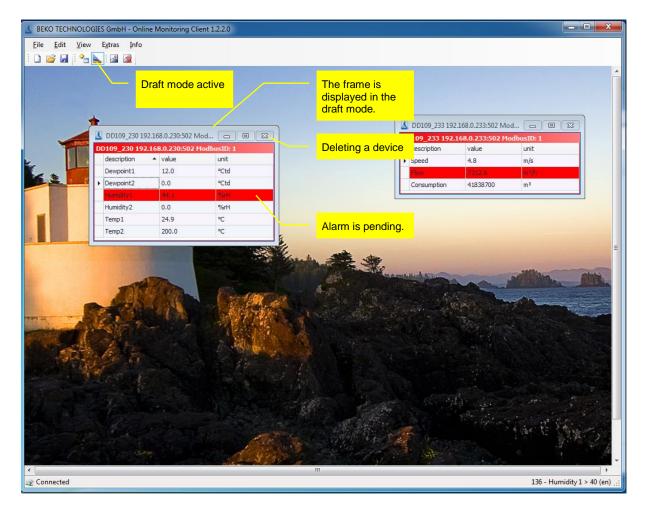


Illustration 10: Draft mode overview

- The current overview will be saved automatically when you exit and loaded the next time the software is started.
- As many overviews as desired can be saved.

Menu item	Toolbar	Action
File -> New		Creating a new overview. If the current view was not saved in a file, the data will be lost.
File -> Open	2	The dialog "Open file" with a filter for overview files ("*. cssh") will be opened.
File -> Save		The currently selected file is saved. If no file is currently in use, the dialog "Save as" will automatically open.
File -> Save as		The dialog "Save as" will open. When overview file are saved the file extension "*. cssh" is used.

Table 3: Overviews

- Using the context menu, the following actions can be performed:
 - Graphical display of all measured values of the selected device within the selected time range.
 - o Alarm configuration for the selected measured value (see 8 Alarm Configuration).

5 Data

- The menu item "View -> Data" switches to the data view.
- A switching to the data view is also possible through the device context menu.
- In the Diagram Explorer, all areas are listed to which the current user has access. The devices are structured as a tree diagram (area, device, measured value).
- With the Chart Explorer data rows can be added or deleted by double-clicking on the appropriate measurement value.
- Data rows can also be added/deleted through the context menu.

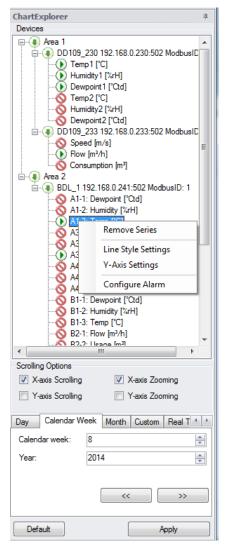


Illustration 11: Diagram Explorer

• The line style can be changed via the context menu:

【 Chart Prope	erties	
Settings Color: Style:	-8- •	Advanced Settings Show Alam Borders Show Average Show Maximum
Marker:		Show Minimum
Thickness:	2	
		Add Series Cancel

Illustration 12: Line Style

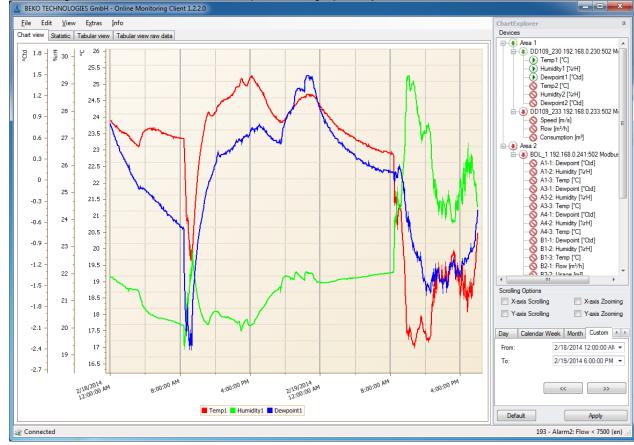
• In addition, the setting of the Y-axis is changed via the context menu. An Y-axis is added for each measured variable.____

【 Axis Se	ettings
Axis-Y S	-
Max:	28.81
Min:	8.85
	OK Cancel

Illustration 13: Y-axis scaling

- The alarm configuration can also be started from the context menu (see 8 Alarm Configuration).
- Depending on the selection of the TabControl in the Diagram Explorer, a different data field is loaded. The data is read optimized from the database (grouping of data the maximum number of possible data points (screen width)). With the button "<<" or ">>" the same time span before or after is read from the database.
- Using "Default" the range is set to the maximum range.
- The Diagram Explorer can be docked to the left or right, or used as a floating window (Windows standard).

5.1 Diagram View



In the diagram view, the selected area is presented graphically:

Illustration 14: Diagram View

Zoom

Depending on the selection in the Diagram Explorer the X-axis (X-axis zoom) and/or Y-axis (Y-axis zoom) can be enlarged or reduced by using the scroll wheel. The selection can also be made via the context menu.

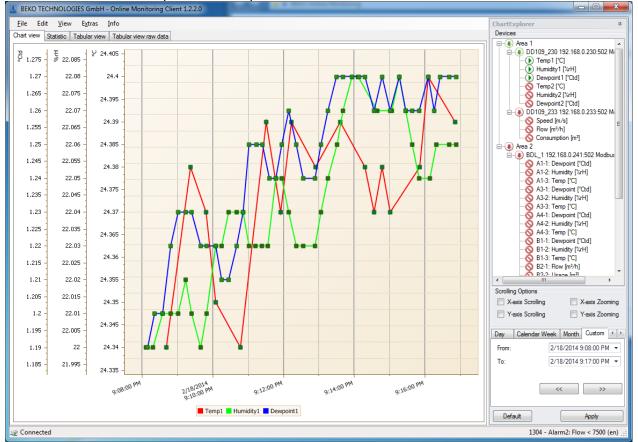
By pressing the Shift key and selecting the desired range, the selected area is enlarged.

By pressing the shift key and clicking an enlargement by one increment will be made.

Pressing the ALT key and clicking will effect a reduction.

Pressing the STRG key and +-key will lead to an enlargement by one increment. Pressing the STRG key and – key will lead to a reduction by one increment.

 Measuring points: If the data does not have to be grouped for displaying, the raw data will be shown. The



measured value will be output in the tooltip.

Illustration 15: Raw data diagram

• Scrolling:

Depending on the selection in the Diagram Explorer a scrolling is carried out along the x-axis (X-axis scrolling) and/or the Y-axis. The selection can also be made via the context menu. Hold down the left mouse button for scrolling.

- Reset Y-scaling: Using the context menu "Zoom -> Reset Y-Axis scaling" all Y-axes are reset to auto scaling.
- Data reloading: After zooming, you can use the context menu "Accept current time range" to load the maximum amount of data for the selected area.
- Moving average:

Using the context menu or the menu "Edit -> Moving average -> Display" the moving average can be displayed/suppressed.

The moving average can be configured via the menu "Edit -> Preferences -> Moving average".

K	Moving Average	ge Configuration
	Settings	
	Indicator Type:	Simple Moving Average 👻
	Points count:	100
	Kind:	Moving Average only
	Envelope (%):	5
		OK Cancel

Illustration 16: Moving average

• Export:

The current diagram can be printed or exported as various types of documents (PDF, HTML, MHT, Rich Text, Excel, CSV, Text, graphically) via the context menu "Export ..." or the menu "File -> Export ...".

The chart diagram can be exported in the following formats:

- a) Hourly: One chart diagram per hour.
- b) Daily: One chart diagram per day.
- c) Weekly: One chart diagram per week.

Selected timespan: print of current chart diagram.

Real-time data:

The current data can be recorded by activating the tab "real-time data" in the Diagram Explorer. The maximum time frame to be displayed is specified in seconds.

Saving:

The current settings (line style, time range ...) can he saved via the menu "File -> Save" and reloaded at a later point in time. Please note that the data is not stored in the file, but loaded from the database when the file is opened. When the diagram data is saved the file extension "*. csch" is used.

5.2 Statistics

• The loaded data will be analyzed statistically, and can be displayed through the tab "Statistics".

<u> В</u> ЕКО	TECHNOLOGIES GmbH - Onlin	ne Monitoring	g Client 1.2.2.	.0								- • ×
Eile	Edit <u>V</u> iew E <u>x</u> tras <u>I</u> nfo										ChartExplorer	車
Chart vie	w Statistic Tabular view Tabu	ılar view raw d	ata								Devices	
	Statistic Report										A & A & A & A & A & A & A & A &	* 1192.168.0.241:502 Modbue 1-1: Dewpoint [*Ctd] 1-2: Humidty [%H] 1-3: Temp [*C] 3-1: Dewpoint [*Ctd] 3-1: Dewpoint [*Ctd] 3-3: Temp [*C] 4-1: Dewpoint [*Ctd]
		ær1_2 /18/20149	:08 PM - 2/1	18/20149:1	.7 PM							4-2: Humidity [%rH] 4-3: Temp [°C]
	Area 1											1-1: Dewpoint [°Ctd] 1-2: Humidity [%rH]
	DD109_230			Device-ID: 5		Modbus-ID: 1	IP	-Address:	192.168.0.230		— 🚫 В	1-3: Temp [°C] 2-1: Flow [m³/h]
	ID Value name	Unit	Average	Min	Time of min	Max	Time of max	Sum alarm 1	Sum alarm 2			2-2: Usage [m ³]
	26 Temp1	°C	24.374	24.339	2/18/2014 9:10:05 PM		2/18/2014 9:16:05 PM	0	0			2-3: Velocity [m/s] 3-1: Dewpoint [°Ctd]
	28 Humidity1 29 Dewpoint1	96rH PCtd	22.04	21.995	2/18/2014 9:08:06 PM 2/18/2014 9:08:09 PM	22.079	2/18/2014 9:13:56 PM 2/18/2014 9:16:05 PM	0	0			3-2: Humidity [%rH]
	DD109 233			Device-ID: 7		Modbus-ID: 1	IP	P-Address:	192.168.0.233			3-3: Temp [°C] 4-1: Flow [m³/h] 4-2: Usage [m³] 4-3: Velocity [m/s]
	ID Value name	Unit	Average 7651.157	Min 7441.28	Time of min	Max 7925.04	Time of max	Sum alarm 1	Sum alarm 2			4-1: Dewpoint [°Ctd]
	34 Rov	m³/ħ	/051.15/	/4128	2/18/2014 9:16:48 PM	/925.04	2/18/2014 9:12:25 PM	U			- Š C	4-2: Humidity [%rH] 4-3: Temp [°C] 4-3: Velocity [m/s]
	Area 2											•
	BDL 1 ID Value name		-	Device-ID: 8		Modbus-ID: 1		-Address:	192.168.0.241		Scrolling Options X-axis Scrolling	ig 🔲 X-axis Zooming
	ID Value name 4 A1-3: Temp	Unit °C	Average 23.633	Min 23.512	Time of min 2/18/2014 9:09:07 PM	Max 23.776	Time of max 2/18/2014 9:15:07 PM	Sum alarm 1	Sum alarm 2		Y-axis Scrollin	ig 📃 Y-axis Zooming
	7 A3-3: Temp	•c	24.075	24.024	2/18/2014 9:09:28 PM		2/18/2014 9:15:17 PM	0	0			
	2/20/2014 8:37 AM			cs_omdatabase	(2/14/2014 11:59 A	M - 2/20/2014 8:3	37 AM)		1/1		Day Calendar From: To:	Week Month Custom 2/18/2014 9:08:00 PM • 2/18/2014 9:17:00 PM •
•										* }	Default	Apply
🧟 Conn	ected										1334	- Alarm2: Flow < 7500 (en) .:

Illustration 17: Statistical analysis

• With the context menu or the menu "File -> Export ..." the statistical analysis can be output with or without graphics.

5.3 Tabular View

• The loaded data will be output in a tabular form and can be displayed through the tab "Tabular view".

BEKO TECHNOLOGI	ES GmbH - Onl	line Monitoring	g Client 1.2.2.0		6 C .		
<u>File</u> Edit <u>V</u> iew	E <u>x</u> tras Info						ChartExplorer
Chart view Statistic T	abular view Tal	bular view raw da	ata				Devices
Time	Area 1 DD 109_230 Temp1 [°C]	Area 1 DD109_230 Humidity1 [%r H]	Area 1 DD109_230 Dewpoint1 [°Ctd]	Area 1 DD 109_233 Flow [m³/h]	Area 2 BDL_1 A1-3: Temp [℃]	Area 2 BDL_1 A3-3: Temp [℃]	
2/18/2014 9:08:05 PM	4						Dewpoint1 [°Ctd]
2/18/2014 9:08:06 PM	4			7576.3	23.65	24.06	Temp2 [*C]
2/18/2014 9:08:07 PM	4	22.0		7595.1	23.66	24.06	Dewpoint2 [°Ctd]
2/18/2014 9:08:08 PM	4	22.0		7613.9	23.66	24.06	Ē-€ DD109_233 192.168.0.233:50
2/18/2014 9:08:09 PM	4	22.0		7632.7	23.66	24.06	
2/18/2014 9:08:10 PM	4	22.0	1.2	7651.5	23.67	24.06	Consumption [m ³]
2/18/2014 9:08:11 PM	4	22.0	1.2	7670.3	23.67	24.07	Area 2
2/18/2014 9:08:12 PM	4	22.0	1.2	7689.1	23.68	24.07	iii-● BDL_1 192.168.0.241:502 Mc
2/18/2014 9:08:13 PM	4	22.0	1.2	7707.9	23.68	24.07	A1-2: Humidity [%rH]
2/18/2014 9:08:14 PM	4	22.0	1.2	7726.7	23.68	24.07	
2/18/2014 9:08:15 PM	4	22.0	1.2	7739.4	23.69	24.07	
2/18/2014 9:08:16 PM	4	22.0	1.2	7732.0	23.69	24.07	A3-3: Temp [°C]
2/18/2014 9:08:17 PM	4	22.0	1.2	7724.6	23.69	24.07	A4-1: Dewpoint [°Ctd]
2/18/2014 9:08:18 PM	4	22.0	1.2	7717.2	23.69	24.07	
2/18/2014 9:08:19 PM	4	22.0	1.2	7709.7	23.69	24.07	B1-1: Dewpoint [°Ctd]
2/18/2014 9:08:20 PM	1	22.0	1.2	7702.3	23.69	24.07	B1-2: Humidity [%rH]
2/18/2014 9:08:21 PM	4	22.0	1.2	7694.9	23.70	24.07	
2/18/2014 9:08:22 PM	1	22.0	1.2	7687.4	23.70	24.07	R2.2 Heans Im ³
2/18/2014 9:08:23 PM	4	22.0	1.2	7680.0	23.70	24.07	< <u> </u>
2/18/2014 9:08:24 PM	1	22.0	1.2	7672.6	23.70	24.07	Scrolling Options
2/18/2014 9:08:25 PM	4	22.0					X-axis Scrolling X-axis Z
2/18/2014 9:08:26 PM	4	22.0	1.2	7663.0	23.70	24.07	Y-axis Scrolling Y-axis Zo
2/18/2014 9:08:27 PM		22.0					Day Calendar Week Month Custon
2/18/2014 9:08:28 PM		22.0					
2/18/2014 9:08:29 PM	1	22.0			23.69	24.07	From: 2/18/2014 9:08:00 F
2/18/2014 9:08:30 PM		22.0					To: 2/18/2014 9:17:00
2/18/2014 9:08:31 PM	1	22.0			23.69	24.07	
2/18/2014 9:08:32 PM	1	22.0			23.68	24.08	
2/18/2014 9:08:33 PM		22.0					
2/18/2014 9:08:34 PM		22.0					
2/18/2014 9:08:35 PM	4	22.0	1.2	7635.8	23.67	24.08	Default Apply

Illustration 18: Tabular View

- If an area within a table is marked, you can use the context menu "Accept current time frame" to reload the current data range.
- The tabular view can be output through the context menu "Export ..." or via "File -> Export ...".

5.4 Raw Data

• In the tab "raw data" the raw data of the database is output for the selected measurement values. If the number of data > width of the chart the grouped data will be output, otherwise the raw data.

le Edit <u>V</u> iew E	xtras Info											ChartExplorer	
rt view Statistic Tabi		oular view raw da	ta									Devices	
Time	Area Name	Device Name	IP Address	Modbus ID	Value Name	Value	Max Value	Min Value	Unit	is Alarm1 is Al	arm2 ^	Area 1	
2/18/2014 9:08:41 PM		DD109 230	192, 168, 0, 230		Temp1	24.3417	24.3805	24,3414		0	0	DD109_230 192.1	168.0.230:502 M
2/18/2014 9:09:22 PM		DD109_230	192, 168, 0, 230		Temp1	24,3804	24,3805	24,3663	-	0	0	- Humidity1 [%rł	H]
2/18/2014 9:09:48 PM		DD109_230	192.168.0.230		Temp1	24,3661	24.3663	24.3520	•C	0	0	Dewpoint 1 [°C	.td]
2/18/2014 9:10:05 PM		DD109 230	192.168.0.230		Temp1	24.3518	24.3520	24.3389		0	0		н
2/18/2014 9:10:47 PM		DD109 230	192.168.0.230		Temp1	24.3391	24.3650	24.3389		0	0	🛛 🚫 Dewpoint2 [°C	td]
2/18/2014 9:11:30 PM	Area 1	DD 109_230	192.168.0.230	1	Temp1	24.3869	24.3924	24.3650	°C	0	0	ia-€ DD109_233 192.1	168.0.233:502 N
2/18/2014 9:11:55 PM		DD109 230	192.168.0.230		Temp1	24.3666	24.3936	24.3663	°C	0	0		
2/18/2014 9:12:13 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3933	24.3936	24.3793	°C	0	0	Consumption [[m³]
2/18/2014 9:12:54 PM	Area 1	DD 109_230	192.168.0.230	1	Temp1	24.3794	24.3924	24.3793	°C	0	0	Area 2	041-500 M. *
2/18/2014 9:13:36 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3923	24.3924	24.3793	°C	0	0		
2/18/2014 9:14:18 PM	Area 1	DD 109_230	192.168.0.230	1	Temp1	24.3792	24.3793	24.3663	°C	0	0	🔥 A1-2: Humidity	/ [%rH]
2/18/2014 9:14:33 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3666	24.3805	24.3663	°C	0	0	(NA1-3: Temp ["	
2/18/2014 9:14:47 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3802	24.3805	24.3663	°C	0	0	A3-1: Dewpoir	
2/18/2014 9:15:01 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3666	24.3793	24.3663	°C	0	0	- A3-3: Temp [*	
2/18/2014 9:15:51 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3793	24.3793	24.3793	°C	0	0	A4-1: Dewpoir	
2/18/2014 9:16:05 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3999	24.4066	24.3793	°C	0	0	A4-2: Humidity	
2/18/2014 9:16:51 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3923	24.3924	24.3781	°C	0	0	B1-1: Dewpoir	
2/18/2014 9:08:06 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	21.9991	22.0023	21.9953	%rH	0	0	B1-2: Humidity	
2/18/2014 9:08:18 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	22.0038	22.0059	22.0008	%rH	0	0	B1-3: Temp [" B2-1: Flow [m ²	
2/18/2014 9:08:35 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	22.0077	22.0086	22.0047	%rH	0	0	R2.2 Heana li	m ³ 1
2/18/2014 9:08:48 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	22.0084	22.0102	22.0074	%rH	0	0		
2/18/2014 9:09:01 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	22.0124	22.0160	22.0086	%rH	0	0	Scrolling Options	X-axis Zoom
2/18/2014 9:09:14 PM	Area 1	DD109_230	192.168.0.230	1	L Humidity1	22.0162	22.0172	22.0148	%rH	0	0		
2/18/2014 9:09:24 PM	Area 1	DD109_230	192.168.0.230	1	l Humidity1	22.0143	22.0168	22.0109	%rH	0	0	Y-axis Scrolling	Y-axis Zoom
2/18/2014 9:09:39 PM	Area 1	DD109_230	192.168.0.230	1	Humidity1	22.0037	22.0109	22.0016	%rH	0	0	Day Calendar Week Mor	nth Custom
2/18/2014 9:09:49 PM	Area 1	DD109_230	192.168.0.230	1	l Humidity1	22.0099	22.0199	22.0035	%rH	0	0		14 9:08:00 PM
2/18/2014 9:10:05 PM	Area 1	DD 109_230	192.168.0.230	1	L Humidity1	22.0271	22.0309	22.0199	%rH	0	0		
2/18/2014 9:10:15 PM	Area 1	DD109_230	192.168.0.230	1	L Humidity1	22.0306	22.0344	22.0285	%rH	0	0	To: 2/18/20	14 9:17:00 PM
2/18/2014 9:10:27 PM	Area 1	DD109_230	192.168.0.230	1	L Humidity1	22.0358	22.0375	22.0344	%rH	0	0		
2/18/2014 9:10:40 PM	Area 1	DD109_230	192.168.0.230	1	L Humidity1	22.0429	22.0457	22.0375	%rH	0	0	<<	>>
2/18/2014 9:10:51 PM	Area 1	DD109_230	192.168.0.230	1	L Humidity1	22.0435	22.0457	22.0355	%rH	0	0		
2/18/2014 9:11:01 PM	Area 1	DD109 230	192.168.0.230	1	Humidity 1	22.0334	22.0355	22.0320	%rH	0	0 -	Default	Apply
onnected													14440

Illustration 19: Raw Data

- The raw data can be output through the context menu "Export ..." or via "File -> Export ...".
- With the context menu of the table heading the raw data can be output:

	BEKO TECHNOLOGIES			Client 1.2.2.0										2
_		Extras Info		_										
h	art view Statistic Tab	ular view Tab	oular view raw dat	a										_
	Time 🔺	Area Name	Device Name	IP Address	Modbus ID	Value Name	Value	Max Value	Min Value	Unit	is Alarm1	is Alarm2	1	*
۲	2/18/2014 9:08:41 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3417	24.3805	24.3414	°C	0	(0	0
	2/18/2014 9:08:46 PM	Area 1	DD109_233	192.168.0.233	1	Flow	7650.8799	7694.7700	7607.7100	m³/h	0	()	
	2/18/2014 9:08:46 PM	Area 2	BDL_1	192.168.0.241	1	A1-3: Temp	23.6910	23.7275	23.6455	°C	0	()	
	2/18/2014 9:08:46 PM	Area 2	BDL_1	192.168.0.241	1	A3-3: Temp	24.0739	24.0940	24.0552	°C	0	()	
	2/18/2014 9:08:48 PM	Area 1	DD109_230	192.168.0.230	1	Humidity 1	22.0084	22.0102	22.0074	%rH	0	()	
	2/18/2014 9:08:48 PM	Area 1	DD109_230	192.168.0.230	1	Dewpoint1	1.2189	1.2299	1.1997	℃td	0	()	
	2/18/2014 9:08:56 PM	Area 1	DD109_233	192.168.0.233	1	Flow	7671.5801	7705.5200	7588.8300	m³/h	0	()	
	2/18/2014 9:08:56 PM	Area 2	BDL_1	192.168.0.241	1	A1-3: Temp	23.6881	23.7118	23.6151	°C	0	() ,	-

Illustration 20: Chronological sorting ascending

b) filtered:

		E <u>x</u> tras <u>I</u> nfo ularview Tal	oular view raw dat	ta									
	Time 🔺	Area Name	Device Name	IP Address	Modbus ID	Value Name 📍	Value	Max Value	Min Value	Unit	is Alarm1	is Alarm2	-
•	2/18/2014 9:08:41 PM	Area 1	DD109_230	192.168.0.230	1	Temp1	24.3417	24.3805	24.3414	°C	0	0	0
	2/18/2014 9:08:46 PM	Area 1	DD109_233	192.168.0.233	1	Flow	7650.8799	7694.7700	7607.7100	m³/h	0	0	
	2/18/2014 9:08:46 PM	Area 2	BDL_1	192.168.0.241	1	A1-3: Temp	23.6910	23.7275	23.6455	°C	0	0	
	2/18/2014 9:08:46 PM	Area 2	BDL_1	192.168.0.241	1	A3-3: Temp	24.0739	24.0940	24.0552	°C	0	0	
	2/18/2014 9:08:48 PM	Area 1	DD109_230	192.168.0.230	1	Humidity 1	22.0084	22.0102	22.0074	%rH	0	0	1
	2/18/2014 9:08:48 PM	Area 1	DD109_230	192.168.0.230	1	Dewpoint1	1.2189	1.2299	1.1997	℃td	0	0	
	2/18/2014 9:08:56 PM	Area 1	DD109_233	192.168.0.233	1	Flow	7671.5801	7705.5200	7588.8300	m³ / h	0	0	
×	🗸 📝 [Value Name] Like '											Edit Filte	

Illustration 21: Filters - Value Name A1-2: A1b

~	grouped:
(:)	oroupeo
U	groupour

<u>s</u> 8	EKO	D TECHNOLOGIES	S GmbH - Onl	line Monitoring	Client 1.2.2.0					-				2	3
<u>F</u> il Cha			E <u>x</u> tras <u>I</u> nfo Jular view Tab	bular view raw dat	ta										ChartExplorer
	Time	2	Area Name	Device Name	IP Address	Modbus ID	Value	Max Value	Min Value	Unit	is Alarm1	is Alarm2		*	plore
	×.	Value Name: A1	-3: Temp												1
	×.	Value Name: A3	-3: Temp												
	⊬	Value Name: Dev	wpoint1												
	⊬	Value Name: Flo	w												
	Value Name: Humidity1														
۲	-	Value Name: Ter	mp1											U	
		2/18/2014 9:08	Area 1	DD 109_230	192.168.0.230	1	24.3417	24.3805	24.3414	°C	C) C)		
		2/18/2014 9:09	Area 1	DD 109_230	192.168.0.230	1	24.3804	24.3805	24.3663	°C	C	0 0			
		2/18/2014 9:09	Area 1	DD 109_230	192.168.0.230	1	24.3661	24.3663	24.3520	°C	C	0 0	1		
		2/18/2014 9:10	Area 1	DD 109_230	192.168.0.230	1	24.3518	24.3520	24.3389	°C	C	0 0			
		2/18/2014 9:10	Area 1	DD 109_230	192.168.0.230	1	24.3391	24.3650	24.3389	°C	C) C)		
		2/18/2014 9:11	Area 1	DD 109_230	192.168.0.230	1	24.3869	24.3924	24.3650	°C	C) C		*	
											-	-	1		
2 C	on	nected										1372 - Ala	rm2: Flow < 7500	(en)

Illustration 22: Grouping Name Value

6 Alarm

- Via the menu item "View -> Alarm", the alarm window is opened.
- In the tab "Current Alarms" the current alarms are displayed.
- Each alarm must be acknowledged. The acknowledgment is performed by clicking on the desired alarm and a subsequent acknowledging via the context menu.
- Alarms that are no longer active and have been acknowledged will be moved to the alarm history. The alarm history can be opened from the tab "Alarm History".
- In the alarm history the last 2000 entries are stored.
- The server errors can be viewed from any OMClient via the tab "Server Messages". Here, the last 2000 entries are stored, which occurred on the server side (OMServer).

• Via the menu item "File -> Export ..." the current view can be exported.

Alarm	Histor	Y								
	1									
Time Set	Time Reset	Time Quit	User Quit	Duration	Area Name	Device Name	Modbus ID	Value Name	Alarm Text	
2/19/2014 9:44:45 PM	2/19/2014 9:45:02 PM	2/19/2014 9:50:31 PM	user1_2	00:05:46	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:45:03 PM	2/19/2014 9:45:27 PM	2/19/2014 9:50:32 PM	user1_2	00:05:29	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:45:29 PM	2/19/2014 9:45:30 PM	2/19/2014 9:50:34 PM	user1_2	00:05:05	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:45:34 PM	2/19/2014 9:45:55 PM	2/19/2014 9:50:35 PM	user1_2	00:05:01	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:45:58 PM	2/19/2014 9:47:39 PM	2/19/2014 9:50:36 PM	user1_2	00:04:38	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:47:41 PM	2/19/2014 9:47:46 PM	2/19/2014 9:50:38 PM	user1_2	00:02:57	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	
2/19/2014 9:47:50 PM	2/19/2014 9:50:07 PM	2/19/2014 9:50:40 PM	user1_2	00:02:50	Area 1	DD109_233	1	Flow	Alarm2: Flow < 7500 (en)	

Illustration 23: Export

- The preview can be printed or exported as various types of documents (PDF, HTML, MHT, Rich Text, Excel, CSV, Text, graphically) via the menu "Export ...".
- With the context menu of the table heading the tabular view can be:

Alarms									
<u>F</u> ile									
Actual Alarms Alarm History	Server Messages								
Time Set	Time Reset	Time Quit	User Name	Duration A	Area Name	Device Name	Modbus ID	Value Name	Alarm Text
2/19/2014 - 9:47:50 PM	2/19/2014 - 9:50:07 PM	2/19/2014 - 9:50:40 PM	user 1_2	00:02:50	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:47:41 PM	2/19/2014 - 9:47:46 PM	2/19/2014 - 9:50:38 PM	user 1_2	00:02:57	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:45:58 PM	2/19/2014 - 9:47:39 PM	2/19/2014 - 9:50:36 PM	user 1_2	00:04:38	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:45:34 PM	2/19/2014 - 9:45:55 PM	2/19/2014 - 9:50:35 PM	user 1_2	00:05:01	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:45:29 PM	2/19/2014 - 9:45:30 PM	2/19/2014 - 9:50:34 PM	user 1_2	00:05:05	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:45:03 PM	2/19/2014 - 9:45:27 PM	2/19/2014 - 9:50:32 PM	user 1_2	00:05:29	Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:44:45 PM	2/19/2014 - 9:45:02 PM	2/19/2014 - 9:50:31 PM	user1 2	00:05:46	Area 1	DD109 233		1 Flow	Alarm2: Flow < 7500 (en)

Illustration 24: "Duration" sorting, ascending

Alarms	-			_				
<u>F</u> ile								
ctual Alarms Alarm History Se	erver Messages							
Time Set	▲ Time Reset	Time Quit 📍	User Name	Area Name	Device Name	Modbus ID	Value Name	Alarm Text
2/19/2014 - 9:49:53 PM	2/19/2014 - 9:50:25 PM			Area 1	DD 109_230		1 Humidity1	Humidity 1 > 40 (en)
2/19/2014 - 9:50:12 PM	2/19/2014 - 9:52:11 PM			Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:51:23 PM	2/19/2014 - 9:51:53 PM			Area 1	DD109_230		1 Humidity1	Humidity 1 > 40 (en)
2/19/2014 - 9:52:35 PM	2/19/2014 - 9:52:40 PM			Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:52:45 PM	2/19/2014 - 9:53:06 PM			Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:53:38 PM	2/19/2014 - 9:54:03 PM			Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
2/19/2014 - 9:57:28 PM	2/19/2014 - 9:57:30 PM			Area 1	DD109_233		1 Flow	Alarm2: Flow < 7500 (en)
					00400.000			al a cl acco ()

Illustration 25: Filters - Timeset from April 18, 2011

c) grouped

/ group									
Alarms									
<u>F</u> ile									
Actual Alarms	Alarm History Server Messages								
Area Name									
Time Set		Time Reset	Time Quit	User Name	Modbus ID	Alarm Text			
👻 Area N	lame: Area 1								
→ De	vice Name: DD109_230								
⊤ De	vice Name: DD109_233								
•	Value Name: Flow								
	2/19/2014 - 9:50:12 PM	2/19/2014 - 9:52:11 PM			1	Alarm2: Flow < 7500 (en)			
	2/19/2014 - 9:52:35 PM	2/19/2014 - 9:52:40 PM			1	Alarm2: Flow < 7500 (en)			
		1			1				

Illustration 26: Grouping AreaName, DeviceName, ValueName

Thus, enabling a detailed analysis of the alarms.

7 Analysis

• The menu item "View -> analysis" initiates the consumption analysis.

🚺 Analysis	
<u>F</u> ile E <u>x</u> tras	
i 🗋 😂 属	
Configure analysis	
possible devices	devices for report
	Area 2
Timespan	Calculation
Calendar Week Month Year Custom	
Calendar week: 8	currency €
Year: 2014	Generate Report
	Report
report type shift	

Illustration 27: Consumption Analysis

• The left pane lists all devices with consumption sensors, which are not considered in the consumption analysis.

- The right pane lists all devices with consumption sensors, which are considered in the consumption analysis.
- With a double-click complete fields or only individual devices or channels can be moved from left to right or right to left.
 The selected area/unit/measuring channel can also be marked and moved with the "left arrow" or "right arrow" buttons.
- The order of the areas, devices and measurement channels can also be defined. For this, use the "up arrow" and "down arrow" buttons.
- Please note, that in order to execute a correct overall calculation devices that are included in a main or subtotal may not be considered.
- The configuration can be saved through the menu "File -> Save" or via the appropriate icon. A saved configuration can be loaded at a later point in time can via "File -> Open". The file extension "*. csua" is used for the configuration files of the consumption analysis. The menu "File -> New" enables the creation of a new configuration.
- Through the menu item "Extras->Config->Price" a price per unit as well as the rate selection/rate definition can be defined for every consumption channel.

	Area	Device	Channel	Value:	Unit	Dual tariff	Tariff 1Price p	Tariff 2Price p	Tariff 1 Start	Tariff 1 End	Tariff 2 Start	Tariff 2 End
•	Area 1	DD 109_233	A1	Consumption	m³		1.0000					
	Area 2	BDL_1	B2	B2-2: Usage	m³		1.0000					
	Area 2	BDL_1	B4	B4-2: Usage	m ³		1.0000					

Illustration 1: Consumption Analysis configuration

• Up to 5 shifts can be defined via the menu point "Extras->Config->shift work". The shifts have to be carried out within one day and are not allowed to overlap, otherwise there will be an error message when confirming the input with the "OK" button.

The starting point of the first shift is allocated to the current day or the following day via the list field "Allocation of the shift start 1 to".

Example:

Example 1	Example 2
Start of shift:22:00 hEnd of shift:6:00 hAllocation:next day	Start of shift:22:00 hEnd of shift:6:00 hAllocation:actual day
If the first shift e.g. starts on Sunday at 22:00 h and ends on Monday at 6:00 h the shift in this example will be allocated to Monday.	If the first shift e.g. starts on Sunday at 22:00 h and ends on Monday at 6:00 h the shift in this example will be allocated to Sunday.

C	onfiguratio	on shift w	ork	-	
CO	unt of shifts		3		A V
	Number	Name	Start	End	
×	1	Schicht 1	22:00:00	06:00:00	
	2	Schicht 2	06:00:00	14:00:00	
	3	Schicht 3	14:00:00	22:00:00	
_					
Ma	pping start (of shift 1 to		ac	tual day 🔹
					OK Cancel
				L	

Illustration 2: Configuration shift work

- Please observe that devices which are located in a main or sum branch may not be included if a correct sum-calculation is to be performed. Additionally, in order to perform a correct sum calculation only consumption variables with the same unit may be included.
- Depending on the selection of the TabControl a weekly, monthly or annual report is create.

Backgro		و 🔎 🔍 🖉	19/ - (4)		N D As	🛛 🕞 – 🖵	- @ -				
	I LY II	V 🖌 🦂 🦉	2.70 + 4		PI CT 1	22 I Lin 🕇 🖂	· 🐷 ·				
Usa	ge An	alysis of	Neek 8	/ 2014							
	-	-		-							
Channe	l Unit	Description	Sunday	Monday	Tuesday	day Wednesday	Thursday	Friday	Saturday	Total	
Area		besalpaon	Sanady	rionady	rucsday	weaterstady	marsaay	Though	botarday	Total	
BDL 1	L										
B2	m ³	start count		91629200	91649000	91682700	91716100				
	m ³	end count		91649000	91682700	91716100	91728700				
	m ³	total		19800	33704	33392	12608			99504	
		average		1338.4	1404.9	1395.2	1329.5			781.2	
		min value		602.0	1103.3	783.5	1131.7				
		max value		1465.0	1660.2	1682.7	1557.0				
	€	costs		19800.00	33704.00	33392.00	12608.00			99504.00	
B4	m ³	start count		65675700	65737000	65847200	65955100				
-	m ³	end count		65737000	65847200	65955100	65997200				
	m ³	total		61300	110200	107900	42100			321500	
		average		4269.4	4585.9	4489.1	4448.7			2541.9	
		min value		858.0	3563.3	2180.9	3895.1				
		max value		5039.9	5099.5	5048.4	4907.0				
	€	costs		61300.00	110200.00	107900.00	42100.00			321500.00	
sum	m ³	consumption		81100	143904	141292	54708			421004	
	€	costs	0.00	81100.00	143904.00	141292.00	54708.00	0.00	0.00	421004.00	

Illustration 28: Consumption Analysis

• The preview can be printed or exported as various types of documents (PDF, HTML, MHT, Rich Text, Excel, CSV, Text, graphically) via the menu "Export ...".

8 Alarm Configuration

The alarm configuration can be called up in the "Overview" view via the device context menu

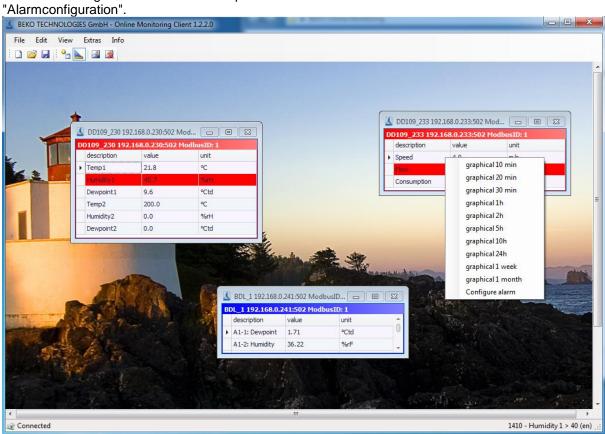


Illustration 29: Device context menu alarm configuration



 In addition, the alarm configuration can be executed from the context menu of the Diagram Explorer:

Illustration 30: Diagram Explorer Alarm Configuration

- 2 limit values can be set for each measured value. Depending on the definition the following variants are possible:
 - A) pre-alarm + main-alarm
 - B) lower limit + upper limit

For each alarm a switch-on delay and/or switch-off delay can be defined. An alarm text can be selected in the combo box "Alarm text". The definition of alarm texts is conducted either in the OMServerGUI or the OMClient (see 3.3.1 Alarm texts).

AlarmConfiguration -	Flow		×
Alarm 1 ✓ Enable alarm		Alarm 2 ✓ Enable alarm	
Alarm type:	< •	Alam type:	<
Threshold:	7500.00000	Threshold:	4000.00000
Switch on delay (ms):	0	Switch on delay (ms):	150
Switch off delay (ms):	0	Switch off delay (ms):	250
Alarm text:		Alarm text:	
Alarm2: Flow < 7500 (e	n) 🔻	Alarm1: Flow <4000 (e	n) 👻
Edit Unlo	ick		OK Cancel

Illustration 31: Alarm configuration, pre-alarm - main-alarm

	AlarmConfiguration -	Flow		×
	Alarm 1 🔽 Enable alarm		Alarm 2 V Enable alarm	
	Alarm type:	>	Alam type:	<
	Threshold:	48.00000	Threshold:	10.00000
	Switch on delay (ms):	0	Switch on delay (ms):	0
	Switch off delay (ms):	0	Switch off delay (ms):	0
	Alam text:		Alam text:	
	Alarm1: Temp K2-53 >	48 (en) 👻	Alarm2: Temp K2-53 <	< 10 (en) 🔻
[Edit Unlo	ck		OK Cancel

Illustration 32: Alarm configuration, lower/upper limit

9 Support and Service

If you have questions about our products, require technical support for the installation or use of our software or if you would like to give us a suggestion for improvements, BEKO TECHNOLOGIES GmbH offers you the following support options:

Please contact us preferably via the following Internet site:

http://www.beko-technologies.com

Of course, you can also reach us by e-mail or phone. For this, please use the following e-mail address or the following phone number.

beko@beko.de

Please don't hesitate to send us a message. We will answer all inquiries within 24-48 hours.