

# Global Meter Manager Software Short Manual

Configuration Manager License Service Manager License

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# 1 Introduction

This document is a brief description of the Global Meter Manager (hereinafter GMM) software functions and features provided by ZENNER International GmbH & Co. KG (further referred to as ZENNER, Internet: www.zenner.com) in context with the following licences and packages:

- Configuration Manager
- Service Manager

This document does not include the functional description of the DEMO licence of GMM software which has restricted access to additional features. This document describes the functions of the licensed software components in order to connect, read or configure the ZENNER type electronic meters, rather than focussing on how to install the software, or purchase and manage the software licenses. The latter information is contained in a separate document which is available for download during the installation process.

# 1.1 Overview of the available software components

GMM consists of software components, each of them designed to fulfil certain tasks within automated meter readout and meter configuration for the metering products of ZENNER.

The type and content of the document depends on the type of license you acquired. Each license allows accessing the functionality of the licensed software package.

GMM is easy to handle. The installation process is fast, the generation of the license key through the internet is simple. You will find yourself oriented in the structure of the program from the very beginning.

GMM requires third parties' software components such as Microsoft's ".NET framework", which are to be acquired separately and are not part of the ZENNER GMM software. The respective trademarks and trade names of the third party software components belong to the corresponding owners.

#### 1.1.1 Configuration Manager License

In the Configuration Manager License package, the following software components or windows are included:

- Start window
- Global Meter Manager (software administration settings)
- AsyncCom
- Designer (defined as default window on installation)
- Configurator

#### 1.1.2 Service Manager License

In the Service Manager License package, the following software components or windows are included:

- Start window (defined as default window on installation)
- Global Meter Manager (software administration settings)
- AsyncCom
- Designer
- Configurator
- DeviceCollector

# 2 Detailed description of the software components

The first window which will be shown after each software start-up can be chosen by the user. This option it will be described on the chapter 2.2 below.



# 2.1 Start Window

The "Start Window" is the main Graphical User Interface (GUI) for the GMM Software. With the exception of the smallest Configuration Manager package, this is the window which appears when the software will be started. This window contains pictograms which are shortcuts to the software components. The screenshot below shows the main window and the numbered pictograms which have functions within the mentioned licence packages:

Start Window		
GlobalMeterManag	jer 2.2	ZENNER
<ul> <li>Obtaining and analysis</li> </ul>		co Device configuration
	Chinadation and readout structures	2.6 (3) Commissioning of bus and radio systems
Database		2.3 Connection to the devices
<f1> Help</f1>	Instantaneous or periodical device reading	

Figure1 – GMM Start window

The pictograms have the following associations to the software components or windows:

#### 2.2 Global Meter Manager

The Global Meter Manager "Defaults" window is the administration area for the GMM software itself.

GlobalMeterManager: 'Defaults'		<u>_ 🗆 ×</u>
File Settings Component Help		
		ZENNER All thet counts.
Database		
Name: Lokale Datenbank Location: PC-LOCAL Type: SQLITE		
Login: (Administrator) User: Administrator	License: ServiceManager / NoOptions [V1NB]	
Password: XXXXXX	Start module StartWindow	•
	🔲 Disable autostart	
Start	✓ Ask before quit program	
		Quit

Figure2 – GMM "Defaults" window



Beginning from the Configuration Manager licence and continued with the Service Manager licence, you have access to the following functions:

- Change the language of the software (English or German)
  - Menu Settings->Language->then select
- Switch to other software component or window
  - Menu Component ->then select
- Download or visualise the software manual from the Internet (available later)
   Menu Help->Global Meter Manager or Help (F1)
- Show information about your installed software version
  - Menu Help->About
  - Delete your actual license
    - Menu Help->Delete license
- See your actual licence level
  - License window (not editable)
- Define your default start module or window
  - Start module window-> then select
- Additional options as "disable autostart" and "ask before quit"
- The user and password management is available only with higher licence packages. If accidentally the already entered information are deleted, these are the default settings: User: Administrator
  - Password: start

Observation: Additional functions are available only with higher licence packages.

#### 2.3 AsyncCom

The AsyncCom is the software component which allows to the user to administrate the physical connection settings over which the devices will be reached. In the menu area (which is visible at any time) you have the following options:

- Open the communication port (establish the connection)
  - Menu Port->Open
- Close the communication port (break up the connection)
  - Menu Port ->Close

**Note**: In the upper window frame of AsyncCom there is a button which can be used as well to open or close the port.

- Wakeup of a device sending continuous break signal
  - Menu Port->SetBreak
- Stop sending the continuous wakeup signal to the device
   Menu Port->ClearBreak
- Selecting other component, step back or quit the program
   Menu Component->then select
- Call the software manual or show information about your installed software version
  - Help->then select

The main window contains 3 further register cards (windows) which contain individual settings and functions. The register cards and the available settings are the following:



#### 2.3.1 AsyncCom Basic

GTZR_AsyncCom		_ <b>_</b> ×
		ZENNER All that counts.
Basic Equipment Timing		
Port type:	Port	
СОМ	COM15	
Remote com	COM1         ACPI\PNP0501\1           COM2         ACPI\PNP0501\2	
Available LUMservers:	COM15 FTDIBUS\VID_0403+PID_6001+Al00DQAKA\0000 COM37 FTDIBUS\VID_0403+PID_6001+A6WQ5B9VA\0000	
Baudrate         Parity           300         no           600         even           1200         odd           2400         9500		
19200 38400 57600 V	Refresh port list	
	Cancel	t Ok

Figure3 – AsyncCom - Basic window

The following options are available:

- Port type:
  - COM means physical or virtual communication interface on your computer. It could be a physical RS232 (available on PC or older Laptops), USB (on almost every current device) or a virtual port for Bluetooth devices.
  - Remote is used only for compatible gateways which could be reached over Ethernet using direct IP addressing (fixed IP).
  - RemoteVPN means to connect to compatible gateways (such as the ZENNER COMServers) which could be reached over the Internet using a secured Virtual Private Network, such as the ZENNER MeterVPN.
- Remote COM:
  - If the above selected port type is "Remote", then the IP address of the communication gateway on the small textbox must be entered.
    - Procedure: enter the IP address (ex: 192.168.1.100) then press Enter
  - If the above selected port type is "RemoteVPN", then in the combo box (bigger text field) a list with the available Gateways will be available.
     Note: These devices and services are available only for contractual clients with higher licence packages.
- Baudrate: here you could choose the speed of your communication port. This parameter is strictly dependant from the connected device and the used interface and must be set with caution, otherwise communication to the devices cannot be established.
- Parity: for communication with a device it is always "even"
- Port: here you could see the last selected port and in the bigger window a list with the currently available ports on the computer. If the COM port is marked with red background it means that it is no more available and another port from the list must be chosen
- Refresh port list button: will check for new available ports (ex: you plug into the computer an USB device afterwards).



**Note**: All changes off settings must be confirmed with the "Set" button before leaving the AsyncCom window.

# 2.3.2 AsyncCom Equipment

🚰 ZR_AsyncCom	
Port Component Help	
	ZENNER All thet counts.
Basic Equipment Timing	
Transceiver device	- MinoConnect
None	Mode:
Device echo	off
Test echo	Auto Denne OFF fet 1000 - Pole Incel 121 0
Echo on	Auto Power DFF [s] 1000 InDa Pulse length [%] 0
- Device website	Infrared combi head
None	IrDa communication
	🗖 Dovetail side
I ransceiver device info:	
	Kau counter 0
	Status counter  0
	Uvenoad counter u
	Cancel Set Ok

Figure4 – AsyncCom - Equipment window

The following options are available:

- Transceiver device:
  - None: default setting for standard ZVEI optical heads or cabled (direct) connection.
  - MinoConnect: a sophisticated ZENNER transceiver available with USB or Bluetooth interface to connect devices over special optical head or cable.
  - Wavenis: special transceiver for ZENNER RDM radio modules.
  - MinolR: special optical head for Minol devices.
- Device echo:
  - Test echo is a function that automatically detects if the device is using echo. If the echo function is not required for any reasons, none of the options is checked.
  - Echo on: First, do not employ the "Echo" function. When there is no response, check this function. Echo test needs time therefore it is better to not to use it when it is not needed.
- Device wakeup:
  - None: default setting
  - Break: necessary for devices which fall back in sleep mode.
  - BaudrateCarrier: used for IrDA optical heads.
  - MinoHead: only for Minol transceiver and optical head.
- MinoConnect: these options are enabled only if on the "Transceiver device" MinoConnect is selected. This group contains the following parameters and information:
  - Mode:
    - Off default.
    - IrCombiHead for combined ZVEI-IrDA optical head by ZENNER
    - RS232 for communication with devices or interfaces without DTR signal.
    - RS232 3V for devices supplied with 3V over the DTR pin.



- RS232 7V for devices supplied with 7V over the DTR pin.
- RS485 3V for devices supplied with 3V over the DTR pin.
- RS485 7V for devices supplied with 7V over the DTR pin.
- Auto Power OFF: value in seconds which tells to the MinoConnect Bluetooth after how many time to switch itself off.
- o IrDa Pulse length [%]: for optimising the transmission with sensitive devices
- Infrared combi head:
  - IrDa communication: enable this checkbox if with the combined ZVEI-IrDA optical head the IrDA interface in the round side will be used
  - Dovetail side: enable this checkbox in the combined ZVEI-IrDA optical head the dovetail IrDA interface will be used
- Status counter: communication status monitoring
- Overload counter: counts if overload occurs when supplying external peripheries (optical head)
- Key counter: count the key strokes on the MinoConnect Bluetooth devices
- Upgrade firmware: here you could upload a newer firmware in the MinoConnect devices.
- Transceiver device info: Information window for the connected MinoConnect device.

#### 2.3.3 AsyncCom Timing

Port: Component Help  Basic: Equipment, Timing  Basic: Equipment, Timing  between receive and transmit, 10 break time, 700 allowed answer time, 400 break time 10000 max. time between received bytes, 0 after opening the comport, 200 offset time for each received block, 50 offset time for all 0 before repeat after error, 200  Defaut  Defaut  Cancel Set Ok	ZR_AsyncCom		
	Port Component Help		
Basic       Equipment       Timing         between receive and transmit       10       break time       700         allowed answer time       400       break interval time       10000         max. time between received bytes       0       after opening the com-port       200         offset time for each received block       50       0       after openat after error       200         offset time for all       0       before repeat after error       200       0       Default         Default			ZENNER All thet counts.
Dots       Expension       5         between receive and transmit       10       break time       700         allowed answer time       400       break interval time       10000         max. time between received bytes       0       after opening the comport       200         offset time for each received block       50       0       after opening the comport       200         offset time for all       0       before repeat after error       200       0         offset time for all       0       before repeat after error       200       0         Default       Default       Default       Default       Default	Basic Equipment Timing		
between receive and transmit       10       break time       700         allowed answer time       400       break interval time       10000         max. time between received bytes       0       after opening the com-pot       200         offset time for each received block       50			
allowed answer time 400 break interval time 10000 max. time between received bytes 0 after opening the comport 200 offset time for each received block 50 offset time for all 0 before repeat after error 200 Default	between receive and transmit	10 break time	700
max. time between received bytes       0       after opening the comport       200         offset time for each received block       50       200       200         offset time for all       0       before repeat after error       200         Default       Default       Default       Default	allowed answer time	400 break interval time	10000
offset time for each received block 50	max. time between received bytes	0 after opening the com-port	200
offset time for all 0 before repeat after error 200 Default Cancel Set Ok	offset time for each received block	50	
offset time for all 0 before repeat after error 200 Default Cancel Set Ok			
Default Cancel Set Ok	offset time for all	0 before repeat after error	200
Default Cancel Set Ok			
Cancel Set Ok			Default
Cancel Set Ok			
			Cancel Set Ok

Figure5 – AsyncCom Timing window

The timing settings are very important for read out or programming of devices. The settings are very different from device to device itself and in combination with the selected interface, a large variety of combinations are available. All the values are in milliseconds and the following options are available:

- Between receive and transmit: Time that the PC hardware and devices need to communicate. PC is usually faster than the devices. It should be set according to speed of devices. Such information is provided in the device documentation.
- Allowed answer time: This time starts running after receiving the last byte of a request. PC waits for the first byte of an answer. If the answer is not received within the set time, it leads to an error.



- Max. time between received bytes: Normally is set to "0", but it can be increased in special situations, ex.: when PC and devices are connected through a Gateway.
- Offset time for each received block: Represents the interval between two received data blocks.
- Offset time for all: Normally is set to "0". This function is recommended to be used for fast troubleshooting with timing errors while the set value will increase the timing for each parameter from above.
- Break time: This function is connected with "Equipment" settings. If the "Send break box" is checked in the "Device wakeup" option then it is needed to specify the break time.
- Break interval time: Usually more than one break signals are sent. This time specifies after what period of waiting time another signal must be sent.
- After opening the com port: Time for which it is necessary to wait after opening the Com-port to the first data transmission. The set times differ according to the different hardware devices, ex. the optical head needs to be full powered.
- Before repeat after error: When an error occurs, GMM has to wait for the defined time before starts communicating again.

#### 2.3.4 Typical AsyncCom settings for ZENNER devices and peripheries

With the Configuration Manager license only point-to-point connections are allowed. This means that only one single device can be connected to the software. Typical connections in this case are:

- connection over standard optical interface (ZVEI)
- direct cable connection to one device (RS232 cable) or through a converter using ZR-Bus or M-Bus interface.
- connection over high speed IrDA optical interface and MinoConnect USB or Bluetooth (only for zelsius C5)

#### 2.3.4.1 ZVEI optical head with Series2 and Series3 devices

Necessary equipment: standard ZVEI optical head (RS232 or USB)

- Port type: COM
- Baudrate: 2400
- Parity: Even
- Port: The port number where the optical head is connected
- Transceiver device: None
- Test echo: enabled
- Echo on: Disabled
- Device wakeup: Break
- Timing between receive and transmit: 10
- Allowed answer time: 1000
- Max. time between received bytes: 0
- Offset time for each received block: 0
- Break time: 700
- Break interval time 10000
- After opening the com port: 200
- Before repeat after error: 200

#### 2.3.4.2 Direct cable connection with Series2 and Series3 devices

Necessary equipment: Series2 or Series3 devices with direct RS232 interface or RS485 (ZR-Bus) and M-Bus interfaces through suitable converters and cables.

Excepting the only one parameter from below, the settings are the same as in the Chapter 2.3.4.1:

- Device wakeup: None



# 2.3.4.3 ZVEI / IrDA optical head (Combo-head) and MinoConnect with Series2 and Series 3 devices in regular speed mode

Necessary equipment: combined ZVEI-IrDA optical head and MinoConnect USB or Bluetooth

- Port type: COM
- Baudrate: 2400
- Parity: Even
- Port: The port number where the optical head through MinoConnect is connected
- Transceiver device: MinoConnect
- Test echo: enabled
- Echo on: Disabled
- Device wakeup: Break
- MinoConnect Mode: IrCombiHead
- IrDA communication: Disabled
- Dovetail side: Disabled
- Timing between receive and transmit: 10
- Allowed answer time: 300
- Max. time between received bytes: 50
- Offset time for each received block: 0
- Break time: 700
- Break interval time 10000
- After opening the com port: 200
- Before repeat after error: 200

# 2.3.4.4 ZVEI / IrDA optical head (Combo-head) and MinoConnect with zelsius C5 devices in high speed mode

Necessary equipment: combined ZVEI-IrDA optical head and MinoConnect USB or Bluetooth

- Port type: COM
- Baudrate: 115200
- Parity: Even
- Port: The port number where the optical head through MinoConnect is connected
- Transceiver device: MinoConnect
- Test echo: enabled
- Echo on: Disabled
- Device wakeup: BaudrateCarrier
- MinoConnect Mode: IrCombiHead
- IrDA communication: Enabled
- Dovetail side: Disabled
- Timing between receive and transmit: 10
- Allowed answer time: 300
- Max. time between received bytes: 50
- Offset time for each received block: 0
- Break time: 700
- Break interval time 10000
- After opening the com port: 200
- Before repeat after error: 200

#### 2.3.4.5 IrDA optical head with EDC and PDC modules (radio, pulse, M-Bus)

Necessary equipment: combined ZVEI-IrDA optical head and MinoConnect USB or Bluetooth

- Port type: COM
- Baudrate: 9600
- Parity: Even
- Port: The port number where the optical head through MinoConnect is connected
- Transceiver device: MinoConnect



- Test echo: enabled
- Echo on: Disabled
- Device wakeup: BaudrateCarrier
- MinoConnect Mode: IrCombiHead
- IrDA communication: Enabled
- Dovetail side: Disabled
- Timing between receive and transmit: 10
- Allowed answer time: 400
- Max. time between received bytes: 0
- Offset time for each received block: 50
- Offset time for all: 0
- Time after opening the com-port: 50
- Break time: 2100
- Break interval time 10000
- After opening the com port: 50
- Before repeat after error: 200

#### 2.3.4.6 IrDA optical head with Minoprotect 3 (Smoke Detector)

Necessary equipment: combined ZVEI-IrDA optical head and MinoConnect USB or Bluetooth

- Port type: COM
- Baudrate: 9600
- Parity: Even
- Port: The port number where the optical head through MinoConnect is connected
- Transceiver device: MinoConnect
- Test echo: enabled
- Echo on: Disabled
- Device wakeup: BaudrateCarrier
- MinoConnect Mode: IrCombiHead
- IrDA communication: Enabled
- Dovetail side: Enabled
- Timing between receive and transmit: 10
- Allowed answer time: 400
- Max. time between received bytes: 0
- Offset time for each received block: 50
- Offset time for all: 0
- Time after opening the com-port: 50
- Break time: 2100
- Break interval time 10000
- After opening the com port: 50
- Before repeat after error: 200

# 2.4 Designer

The Designer component serves for the configuration of Series 2 electronic ZENNER devices. The Series 2 devices are:

- zelsius ® C2 (with coaxial measuring capsule)
- zelsius ® C3 (with inline single-jet flow sensor)
- multidata WR3 heat or heating/cooling energy calculator
- multipulse/multilog pulse counting module and data logger

With Designer, it is possible to modify meter functions that are not under a write protection (resp. under an electronic metrological seal).

Modifying certain write protected values (under the metrological seal) is only possible with special licence packages which are available only for ZENNER service partners.



Since Designer communicates with the units by using a bus protocol, all data channels are opened. It is possible to address a unit directly through an optical head as well as through a bus system or over the internet.

**Note:** The Designer component (module) will be replaced in the future by the new Configurator software module, which will take over its functionality.

#### 2.4.1 File



Figure6 – Designer's File menu

- "Open device ..." opens the following "Open a meter backup" window:

🔜 C	pen a meter b	ackup					
	0						ZENNER All that counts.
Lis	t of founded meters	3					
	MeterID	MeterInfolD	SerialNr	ProductionDa	ApprovalDate	OrderNr	<b>▲</b>
	10000000	0	22226011	1/1/1900	1/1/1900		
	10000004	0	25332141	1/1/1900	1/1/1900		
	10000002	0	26164120	1/1/1900	1/1/1900		
	10000005	0	26240070	1/1/1900	1/1/1900		
	10000003	0	27023163	1/1/1900	1/1/1900		
►	500098189	101383	39800055	11/3/2009	11/3/2009	??	
							•
Ba	ckups out of the se	elected meter					
						Please type a	serial number or a
	Timesiuk last		_			MeterID	
-	Timepoint last	change					
₽	11/3/2009 11	:U9 AM				04	
	11/3/2009 11	:07 AM				70	
	11/3/2009 11	:04 AM				Se	earch Serial No.
							Search MeterID
						Ok	Cancel

Figure7 – Designer "Open a meter backup" window

- To view the available list of meters out of the database in the "List of founded meters", search for the required meters either by its serial number or Meter ID on the right side of the window.
- To search meter by its serial number, enter its number behind the "%" sign and select "Search Serial No."



- To search meter by its ID, enter its number behind the "%" sign and select "Search 0 MeterID".
- The "Backups out of the selected meter" window lists the dates of modified 0 information about meters.
- 0 To view the meter or a meter according to the last modification select the desired field and select "Ok" at the right bottom of the window.
- "Print ..." opens the "Print meter report" window where it is possible to select which information should be printed:

🖼 Print m	eter report 🛛 📇	
11. 27.2.1.2.	2	
		An the counts.
Print se	lection	
<b>I</b> (	Cover sheet	
<b>v</b> :	Short user's guide	
<b>I</b> 1	feter menu overview	
<b>I</b>	Description of the functions	
<b>I</b>	Description of the system and invisible functions	
<b>I</b> 1	dBus-list	
Prin	ter Cancel	Print
Fie	nuro? Designer print entiene	

Figure8 – Designer print options

- To print, select the "Print" button at the right bottom of the "Print meter report" 0 window.
- "Options ..." opens the "Designer Options" window.

Designer Options	<b>e</b>
	ZENNER All that counts.
Base settings	
Show actual values in the menu views (slower reading of the device)	
Let meter time unchanged	
Logger settings	
<ul> <li>Reset all loggers. (Delete all data.)</li> </ul>	
C Reset extended logger and hold base loggers. ( Delete only the configurable loggers. Slowly ! )	
	Cancel
	Ok
Figure9 – Designer options window	

When the "Show actual values in the menu views (slower reading of the device)" 0 option is not checked, the standard values are displayed. To view the actual values out of the meter, check this option. The following screenshot stands as for the example of the "Designer" window with meter values:





Figure10 – Designer main window after meter read out

**Note:** To view a detail of any of the windows displayed in the main "Designer" window, right click the required one and tap "View detail".

- Mark the checkbox "Let meter time unchanged" to prevent changing the device time during writing the device.
- Reset all loggers" deletes all of the information out of the loggers.
- Reset extended logger and hold base loggers" deletes all information from the configurable loggers, but hold the information in the base loggers. Only devices with extended memory have configurable loggers.
- "Close" quit the program.

#### 2.4.2 Device



Figure11 – Designer's Device menu

- "Read" activates reading of the connected device. With every single read out of a unit, it is checked whether the device has already been read out that day and if not a copy of the device data is written to the GMM database automatically. Therefore there is always a backup for each of the units available.
- "Write" saves all of the made changes into the required device. With every single writings into the unit, a backup in the GMM database is created automatically.
- By chosen the "Read actual values" option, the "Actual, temporary values" window shows up. This option is only available, if a device has been read previously.



			Volume			Flow temperature		Input 1 a	ctual Value		
	0,878078	392 MWh			14,1 m <sup>3</sup>		85,22 °C				0 m
ooling energy			Power			Return temperati	ure	Input 2 a	ctual value		
		0 MWh			0 m³/h		30,47 °C			0,12	5 n
arif energy 1			Flow			Temperature diff	erence	Meter tim	e		
		0 MWh			0 m³/h	1	54,75 °C		27.	07.2010_10:1	5:1
arif energy 2								Next eve	nt time		
		0 MWh							27.	07.2010_11:0	0:0
Deed G		Energy	CEnergy	Volume	ECEnergy+	ECEnergy-	Input1	Input2	TempF	TempR	1
Read time	_		-	141	0		10	0.125	85.22	30,47	5
27.07.2010 1	1:14:21	0,878078392	0	14,1	U	U	U	0,120			_
27.07.2010 1	1:14:21	9,878078392	0	14,1	U		U	0,123			t
27.07.2010 1	1:14:21	0,878078392		14,1	U			0,123			
27.07.2010 1	1:14:21	0,878078392	0	14,1				0,123			
read time 27.07.2010 1	1:14:21	0,878078392		14,1				0,123			
ogg file path	1:14:21	0,878078392	U Volumendu in cased	14,1		U ata\ActueNaluesi c		0,123			
ogg file path	1:14:21	0,878078392 en\All Users\4	U Anwendungsda	aten'ZENNER	\GMM\LoggDa	ata\ActueMaluesLo	g.csv	0,123			

Figure12 – Designer "Actual values2 window

- $\circ\,$  In the top range of the window, the actual, temporary values of the device are displayed.
- Below this range the values are displayed in table form.
- There is also the possibility to write the data into a log file. Please check the "Logg to file" option and choose with the "Select file ..." button a log file. The data are stored in csv-format.
- The values can be refreshed automatically after a specified time. To specify the time, enter the requested time in "Wait time (s)" and click "Start".
- The "Refresh counter" displays the quantity of repetitions. To refresh the values, press the "Refresh" button.
- $\circ$  "Close" closes the window.
- With the option "Read logger" it is possible to read logger data from the device. The following window shows up:



Read	logger						
*****	a de la compañía de la						ZENNER All thet counts
Logger	data:						
	TimePoint	ZDF: MWH_TAR[1] Id: 1107 Cooling energy, heat meter [MWh]	ZDF: MWH Id: 1100 Energy, heat meter [MWh]				
•	01.07.2010 00:00:05	0	0,73				
	23.06.2010 15:05:02	0	0,67				
*							
Selecte	ed logger:				Process bar:		
Monats	sLoggerKuW			•			
Channe	els:		Cycle time:				
Cooling	) energy, heat meter		month				
TimePo	, riea, meter pint		Max number of 24	f entries:			
			Stored number	of entries:	First readout time point:		Read
			2		01.06.2010 00:00	•	Stop
			First stored tim	e point:	Last readout time point:	_	Save to database
			···		01.08.2010 00:00	<b>_</b>	Export to Excel
			Last stored time	e point:	Estimated readout time:		Concel
			···		1 Sec.		Lancel

Figure13 – Designer logger window

- To display the required logger data from the device, choose the appropriate logger from the drop-down menu "Selected logger". In the section below the drop-down menu, you can find information on the selected logger. All channels, which are stored in the logger, are displayed in the "Channels" window. Additional information will be displayed: "Cycle time" (e.g. month), "Max. number of entries" in the logger, "Stored number of entries", "First stored time point" and "Last stored time point".
- With the functions "First readout time point" and "Last readout time point" period can restricted to display the data.
- The progress of the reading process is shown in the "Process bar" and the estimated time for this process is displayed in "Estimated readout time".
- To start the readout process, press the "Read" button. You can interrupt the readout process by pressing the "Stop" button. After the readout process, the data are displayed in the "Logger data" window.
- The feature "Save to database" is not yet available.
- For further handling the data can be transferred to Excel. To do this, press the "Export to Excel" button.
- o "Cancel" closes the window.

#### 2.4.3 Modify

Modiry
Undo
Config
MBus list
Logger
Show selcted function details

Figure14 – Designer's Modify menu



- "Undo" goes one step in the changes back.
- "Show selected function details" displays a window with additional information of the selected function.
  - To view details of a function, it is also possible to right click the required window out of the main "Designer" window after some unit has already been read and tap "View detail". An example is given on the following screenshot:

2 <b></b> b,c:	<b>I COO MW h</b> Due date energy	s- PL View detail Sensor typ and mounting point
2 <b>— 🗘</b> b,c: Due	Image: CLOO MW h           e date cooling energy	s- IOO V Pulswertigkeit

Figure15 – Calling "View detail" display function

# 2.4.3.1 Config

The "Meter Configurator" window shows up after selecting "Modify" and "Config ..." out of the main menu. This window is divided into the following parts:

#### 2.4.3.1.1 Device:

"Device" window is a part of the "Config" options of "Designer".



dent data	Bus data	Device time	Special dates
leter number	MBus address	Actual device time	Due date
9800055	2		1/ 1/2012 💌
leter ID 100098189	MBus meter number 39800055	Next event time	End of battery 2015
ase type number 90	Baudrate	Read from device	End of calibration
actoru tune number		Device time to set	
01383	Customer number	3/ 9/2011 9:03:04 AM 💌	
	0	Use current computer time	
	Cycle time (sec.)	Subtract summer time	
	Standard Do	Time zone offset	
		1 Hours	
	Fast 10	0 Minutes	
	Fast on volume change	1º Milliakes	
	Fast on temperature change	Write	
edium (MBus standard)			
leat meter with mounting position	n on warmer pipe	<b>v</b>	

- "Ident data"
  - "Meter number" stands for a serial number of a meter.
  - o "Meter ID" is a real identification of a meter for ZENNER.
  - "Base type number" is only as for the internal use.
  - "Factory type number" defines a type of a configuration.
- "Bus data"
  - MBus address" is an address of a meter. When a modification is needed, it is recommended to make such changes in the "DeviceCollector" component.
  - "MBus meter number" is a serial number of a meter. We do not recommend changing it.
  - "Baudrate" can be changed in the "DeviceCollector" component if necessary. We do not recommend making such changes in "Designer".
- "Cycle time (sec.)" is a read only, informative option that can be changed on a request by ZENNER.
  - "Standard" cycle time defines the time after which the information on a display of the meter is updated when a flow is recognized.
  - "Fast" cycle time is activated in special occasions if at least one of the following options is checked.
  - "Fast on volume change" can be activated on request.
  - "Fast on temperature change" can be activated on request.
- "Device time"
  - "Actual device time" is displayed when the "Read from device" button is selected.
  - "Next event time" is a time of a next event, such as logger storage, daily backup and so on.
  - "Device time to set" is usually the actual time of a computer if the "Use current computer time" option is checked. It can be modified. But it is not recommended to change the time in days, weeks, months, ...
  - $\circ$  "Subtract summer time" is chosen automatically.
  - "Time zone offset" can be used in case that the meters are used in a different time zone.



- "Special dates"
  - "Due date" is a date when the consumption from the period of time in between the last due date and the current due date is going to be saved. The "Due date" values can be viewed in "Values" under "Config ...".
  - "End of battery" recommends the year for a battery to be changed.
  - "End of calibration" recommends the time of a replacement of the meter. It is not entered in all of the cases.
- "Medium (MBus standard)": In this field, the medium of the read device is shown. With uncertified devices (e.g. ZENNER multipulse), the medium can be changed at this point.

#### 2.4.3.1.2 Main meter:

"Main meter" is an energy meter part of the unit. The options of "Main meter" are read only.

 Device
 Main meter
 Values
 Tariff
 Input 1
 Input 2

Base configuration	Fixed temperature	
CSrL Cooling	🖲 off	Temperature [°C]
Heating and cooling	C Supply	0.00
Energy and temperature off	C Return	
🔽 Limitation to 1 Hz		
🔽 Double reed	Minimal temperature	difference
Energy settings		
Energy unit	C Set energy to 0	
0.00MWh	C Use min. temper	ature difference
Volume unit		
0.0m <sup>3</sup>	Heating [°C]	0.00
Pulse value	Cooling (°C)	0.00
100 I/Imp		
Flow sensor mounting position:	Cooling threshold ter	nperature (0.00 = off)
Return for heat meter (colder pipe)	Temperature [°C]	0.00
<ul> <li>Supply for heat meter (warmer pipe)</li> </ul>		

Figure17 – Main meter tab in configuration window

- "Base configuration" is set out of the following options which description is currently available in German:

Gundeinstellung des Zählers
Je nachdem, wie der Zähler eingestellt ist, wird angezeigt: bAS:_HSrL -> Nur Wärme, Einzelreed, 1Hz Filter bAS:_HSrH -> Nur Wärme, Einzelpuls, 100Hz Filter
bAS:_HdrL -> Nur Wärme, Doppelreed, 1Hz Filter bAS:_HEnL -> Nur Wärme, Drehgebereingang, 1Hz Filter bAS:_CSrL -> Wärme und Kälte, Einzelreed, 1Hz Filter
bAS:_CSrH -> Wärme und Kälte, Einzelpuls, 100Hz Filter bAS:_CdrL -> Wärme und Kälte, Doppelreed, 1Hz Filter bAS:_CEnL -> Wärme und Kälte, Drehgebereingang, 1Hz Filter
bAS:_0SrL -> keine Energieberechnung, Einzelreed, 1Hz Filter bAS:_0SrH -> keine Energieberechnung, Einzelpuls, 100Hz Filter bAS:_0drL -> keine Energieberechnung, Doppelreed, 1Hz Filter bAS:_0EnL -> keine Energieberechnung, Drehgebereingang, 1Hz Filter

Figure18 – Available basic configuration for meters



- "Cooling" option when checked, the air-conditioning impulses are calculated.
- "Heat and cooling" stand for a calculation of both, heating and cooling impulses.
   When none of the two last mentioned options is checked, the heat calculation is automatically activated.
- When the "Energy and temperature off" option is checked, only the volume is counted.
- When "Limitation to 1 Hz" is not activated, it works for mechanical meters that are generally slower.
- o "Double read" when checked represent two read inputs for one volume.
- "Energy settings" generally display the units of energy, volume and the impulse value.
  - "Volume meter mounting position"; Normally, the meters are installed in a back-flow but when the meter is mounted in a flow the "warmer pipe" option has to be checked.
- "Fixed temperature" is usually off. When the temperatures of a "Flow" or "Return" are set, the temperature of a sensor is overwritten.
- "Minimal temperature difference" is usually off. The sub-settings depend on the country requirements.
- "Cooling threshold temperature (0.00 = off)" is used to switch in between heat and cooling. The given temperature stands for a flow temperature.

#### 2.4.3.1.3 Values:

The "Values" window displays the current values, the values saved at the last two due dates. The "Values" options are read only.

Device Main meter Values Tariff Input 1 Input 2	
Actual values       Energy       0.069344194       Cooling energy       0       Volume       1.2	Due date values         Last energy value         0       MWh         Last cooling energy value         0       MWh         Last volume value       m²         0       m²         Second last energy value       MWh         Second last cooling energy value       MWh         Second last cooling energy value       MWh         Second last volume value       MWh
Figure19 – Values tab in configuration window	

Figure19 – Values tab in configuration window

- "Actual values" display the current values of the meter in the given units.
- "Due date values" display the data saved in the last due date in the given units. In some cases, there can be values of the last two due dates displayed.



#### 2.4.3.1.4 Tariff:

The ZENNER meters are able to calculate tariffs. If such a function is required, feel free to contact ZENNER.

Device   Main meter   Values	s Tariff   Input 1   Input 2		
Settings Tariff function OFF Reference temp.	Tariff: actual values - Energy tariff 1 50.00	MWh MWh	

# 2.4.3.1.5 Input 1 and Input 2:

The "Input 1" and "Input 2" windows display the basic information about the inputs of a meter such as "Actual value", "Due data values", "Meter number", "Meter type", "Pulse settings".

Device Main meter Values Tariff Input 1 Input 2	
A short ushes	
0.5 Jm <sup>2</sup>	
Due data values	
Last value	
0 Int	
Second last value	
m³	
Identification	se settings
Meter number Pu	ilse unit
00000000 0	.0m³
Meter type Pu	ilse value
Water meter	1 m³/Impuls
Set input / output 1 functions to:	
Impor	

Figure21 – Input1 tab in configuration window

# 2.4.3.2 M-Bus list

The "MBus Editor" defines which variables are going to be displayed while reading the meter out.



GM MBus Editor				
41. 0 A			ZENNER All that counts.	
Not selected MBus variables:	Short list MBus variables:	Parameter descrip	tion::	
Due date (S.R.D.) MarkupHeatenergyMinus MarkupHeatenergyPlus MBus address Peak flow Peak power TarifReferenztemperatur Temperature difference	Customer number Heat energy Cooling energy Display value of input 1 Display value of input 2 Error status for MBus output Storage timepoint of the due date Heat energy on due date Meter value at input 1 on due date Meter value at input 2 on due date Serial number Input 1 Additional full list MBus variables: Volume Flow Power Supply temperature Return temperature Seconds End of the battery lifetime Storage timepoint peak flow Peak flow absolute			
	Peak power absolute e:fl: Month logger max. values gl: Month logger store func. (h/c/i)			
Logger Used bus entries: Maximum entries: T6 Cancel Cancel Ok				

Figure22 – M-Bus editor window

- $\circ$  "Not selected MBus variables" are located in this part of the window.
- "Short list MBus variables" are going to be displayed when viewing the default list of variables in the "DeviceCollector" component.
- "Additional full list MBus variables" are shown additionally to the "Short list MBus variables" when displaying the complete list of variables in the "DeviceCollector" component.
- o "Logger"
- "Used bus entries"; e.g. when "2" is entered it saves the last two months in the MBus protocol.
- "Maximum entries" stands for a maximum of entries into the logger.
- "Free frame bytes" displays the amount of bytes that are free out of 250.

#### 2.4.3.3 Logger

The "Logger ..." option calls the "Logger modification" window:



See Logger modification		
		ZENNER All thet counts.
Selected logger: MonatsLoggerKuWulD Available variables: Cooling energy on due date Customer number Due date (S.R.D.) End of the battery lifetime Error status for MBus output Flow, current, heat meter Heat energy on due date MarkupHeatenergyPlus MarkupHeatenergyPlus MBus address Meter value at input 1 on due date Meter value at input 2 on due date Peak flow	Channels: Display value of input 2 Display value of input 1 Cooling energy, heat meter Energy, heat meter TimePoint	Cycle time:  Month  Kumber of cycles:  24  Needed bytes per cycle:  20  Needed bytes:  480  Free bytes for storage:  923
Peak flow absolute Peak power Peak power absolute Power, current, heat meter Serial number Input 1 Serial number Input 2 Storage timepoint of the due date Storage timepoint peak flow Storage timepoint peak power TarifReferenztemperatur Temperature difference	Description of variable:	Days to overflow: 00744.0 Cancel 0k

Figure23 – Logger editor window

- There are two types of loggers that can be selected under the "Selected logger" option. They are as follows:
  - o "MonatsLoggerKuWuIO" saves the logger predefined values monthly.
  - "MaxValuesMonthLogger" saves the maximal logger month values.
- The other options of the "Modify logger" window are:
  - "Available variables" window displays the available logger values.
  - "Channels" stand for a definition of the columns displayed when the logger information is viewed.
  - "Description of variable" displays a description of the selected variable from the "Available variables" and "Channels" window.
  - o "Cycle time" defines how often the loggers are going to be saved.
  - "Number of cycles" stand for an amount of the rows displayed when the logger information is viewed.
  - "Needed bytes per cycle"; "Needed bytes"; "Free bytes on storage" are informative and a read only windows that define the amount of bytes needed or a cycle and the bytes that are left in a storage.
  - "Days to overflow" specify when the first saved cycle is going to be overwritten. In the example window above, the first cycle is going to be overwritten in 744 days.



#### 2.4.4 Component

#### Component

StartWindow	Ctrl+Shift+W
GlobalMeterManage	r Ctrl+Shift+G
Back	Ctrl+Shift+B
Quit	Ctrl+Shift+Q
DeviceCollector	Ctrl+Shift+S
AsyncCom	Ctrl+Shift+A
Elaura 04 Declara aria "(	Component" monu

Figure24 – Designer's "Component" menu

In case of this option, switching directly to the "Start Window", "GlobalMeterManager" window is possible, or also going back to the previous window, quitting "GMM" or switching into "Designer" (if available) and "AsyncCom" components.

#### 2.4.5 Help

#### Help Designer help F1 About Figure25 – Designer's "Help" menu

If choosing the "Help" button, the help window shows up.

The following picture buttons serve as for a faster work of some settings. Instead of selecting

some of the required and mostly used settings, tap the associated picture button.





# 2.5 Configurator

The Configurator is a new component in the GMM Software and serves to configure the new Series 3 devices. In the actual release the Configurator can also read out the configuration parameters of Series 2 devices but changing the settings is not yet implemented. This function will be part of a later release.

The Configurator is designed as a single window graphical interface. The functions of the elements are described below.

#### New screenshot!

🚰 Configurator								_	
Component Help									
	5								ER
	1								counca.
Parameter Standard guele time	Value	Unit	<b>–</b>	Devic	e type	ZR_Serie:	3		•
End of batterie	2021	5		Virtual subd	device	>: 450536	50;ZRI		•
End of calibration	1980							Datas	
Device date and time	03.02.2016 09:16:23			Parameter description				Print	
Device error	True								<u> </u>
Protected	False								
Flow mounting	False								
OperatingHours	8018	h							
ShowVolumeAsMass	False								
Temp Range UpperLimit	110,00	°C							
TempRangeLowerLimit	-5,00	°C							
CycleTimeVolume	4	s							
Error code	32								Ψ.
ShowGCAL	False								
Glycol	off	%							
M-Bus Address	0			Read only color					
Serial number	45053650			Is function color					
Due date month	1		-	Value changed color					
			_			Read	Write	Save	•

Figure27 – Configurator window after meter reading

#### 2.5.1 Menus and buttons

- Special tools and functions (not available now)
- Menu Tools->Not implemented
   Selecting other component, step back or quit the program
  - Menu Component->then select
- Call the software manual or show information about your installed software version o Help->then select

	5			
-	-/	Undo the last	parameter	modification.

-	Read Will start the meter reading. During the reading, on the status ba reading progress cold be seen.	r the
	Read: 6144	

When the reading is finished, the parameter window will be populated with the values.



Write Will write the parameters back to the device. If parameters are changed in the main device, this will be saved before the writing procedure.

Save Will save the modified parameters. It is important to save the modifications before to switch to another virtual sub-device.

Print

This is not a conventional printing function, but rather a save-to-file function. The button will show an option window where you could define the path where a text file will be created. Optional, you could add the date and time information to the generated file name:

🚰 Meter setup print	
	ZENNER All that counts.
Save folder:	Select folder
C:\Dokumente und Einstellungen\All Users\Anwendungsdaten\ZENNER\GMM\LoggData	
Add save time to file n	ame: yyMMddHHmmss 🔽
	Print

Figure28 – Print options on the Configurator window

After selecting the desired path, with the "Print" button you will generate a file which contains the device identification, setup, LCD menu, M-Bus parameter list and logger description.

This is a guick-print function for the device parameter window. The button will show an option window where you could filter the desired information then select your printer:

<ul> <li>✓ Parameter</li> <li>✓ Value</li> <li>✓ Unit</li> </ul>	Rows to print
	Fit to page width
	Title of print
	ZR_Serie3
	<b>•</b>
	,
	OK Cancel

Figure29 – Print options on the parameter print window

#### 2.5.2 Device type selection

- "Device type" it is a selection box which serves to select your device type which will be read or configured. There are two ways to use this selection box:
  - Point to Point mode when your Device Collector is set to Point to Point mode. Here  $\circ$ you could select from your list two meter types:
    - Series3 meaning zelsius C5 heat meters
    - EDC – Electronic Data Capture module (wireless, M-Bus or pulse)
    - . PDC – Pulse Data Capture module (wireless or M-Bus)
    - . Minoprotect 3 – Smoke detector
    - New picture!



Device type	ZR_Serie3
Virtual subdevice	ZR_Serie3 EDC
Parameter description	Minoprotect 3

Figure30 – List of available ZENNER devices types in Configurator when the Device Collector act in pint-topoint mode

 Bus mode – you are able to select your desired Series3 device from a list, if your Device Collector is set to "Bus mode". This option is available only with the Service Manager License package (and higher).

Selected device in device collection	43013899;ZRI;Heat;1
Virtual subdevice	30804544;ZRM;Heat;5 30803585;ZRM;Water;1
Parameter description	43013847/2/RI;Heat;5 28431677/ZRM;ChangeOverHeat;0 12345678/ZRM;Water;12 30804529/ZRM;Heat:14
	31410189/ZRM;Heat;15 43013899/ZRI;Heat;1

Figure31 – List of available ZENNER Series2 and Series3 devices in Configurator when the Device Collector act in Bus mode

#### 2.5.3 Device parameter window

The device parameter windows will be populated with values only when a meter was successfully read and will show the values for the main meter or for the select additional input.

Parameter	Value	Unit
Protected	False	
Flow mounting	False	
OperatingHours	8020	h
ShowVolumeAsMass	False	
TempRangeUpperLimit	110,00	°C
TempRangeLowerLimit	-5,00	°C
CycleTimeVolume	4	s
Error code	32	
ShowGCAL	False	
Glycol	off	%
M-Bus Address	0	
Serial number	45053650	
Due date month	1	
TimeZone	1	
Compact MBus Lists		
Clear all loggers		
SetPcTime		

Figure32 – Example of parameter window for a Series 3 device

- The parameters marked with blue background color are not changeable and are representing mostly values which are protected under the metrological seal.

**Note**: These protected values cannot be modified with the regular GMM licenses even if the metrological seal is broken. Only special service partner licenses allow changing some of these parameters.



- The parameters with white background color are free to be modified. These parameters are:
   Particular for Zelsius C5 heat meters:
  - M-Bus Address will change the Primary address of your heat meter
  - Device serial number you could modify the M-Bus serial number for this device. The fabrication serial number will remain unchanged.
  - Due date month will define the month for the Due date values (1 = 01.01. of each year).
  - Time zone define the time difference from UTC
  - Compact M-Bus List this function will configure the zelsius® C5 device to send the M-Bus parameter list in Series2 compatibility mode (one single data telegram including the additional input values too).
  - Particular for EDC Modules:
    - M-Bus Address will change the Primary address of your heat meter
    - Medium To choose the measuring medium for the EDC module itself which is sent in Short Header radio mode (ex.: cold or hot water)
    - Due date will define the day and the month for the Due date. The selection is possible through the calendar editor.
       Note: If the Due date is changed, the data logger must be re-initialized with the "Clear all loggers" function!
    - Total Volume Pulses The actual meter index in liters.
    - Radio activ enable or disable the radio communication
    - Time zone define the time difference from UTC in quarter of hours (ex.: 4 = +1 UTC)
    - Serial number secondary the serial number of the associated water meter on which the EDC is installed. This serial number will be sent <u>only</u> when the Long Header option is enabled.
    - Medium secondary To choose the measuring medium for the associated water meter on which the EDC module is installed (ex.: cold or hot water). This information will be sent <u>only</u> when the Long Header option is enabled.
    - Pulse out Mode define the Mode how the pulse will be delivered:
      - Mode U Out1: Balanced pulses; Out2: Tamper & Error
      - Mode B1 Out1: Forward pulses; Out2: Backward pulses
      - Mode B2 Out1: Forward and backward pulses; Out2: Backflow signal
      - Mode B3 Out1 and Out2: Quadrature signal
      - Pulse out Width defines the length (duration) of the pulse
    - Pulse out Resolution The pulse value per unit delivered from the EDC. This function is available only for EDC-Pulse.
- The parameters with green background color are functions which will do the following:
   Particular for Zelsius C5 heat meters:
  - Clear all loggers will erase the old stored values and will create a new logger table. This is important in case is you change some settings which have influence on the already stored values.
  - Set PC time will synchronize the device internal clock with the PC time.
  - Particular for EDC modules:
    - Radio Enabled allows enabling or disabling the EDC module to send radio waves.
    - Long Header allows choosing if the serial number and the medium of the associated water meter instead of the EDC module will be sent.
    - Pulse detection enabled this will enable the detection of the water meter modulator disc.

**Note:** To prevent unexpected pulse counting due the handling, the retrofit EDC modules (delivered separate without water meter) has this function as default disabled. It is important to enable this function to get the meter reading!



- Clear Warnings will set back all messages generated from not critical failures.
- Set PC time will synchronize the device internal clock with the PC time.
- Clear all loggers will erase the old stored values and will create a new logger table. This is important in case is you change some settings which have influence on the already stored values.

#### 2.5.4 Virtual sub-device selection

**Note**: Devices like the zelsius®C5 or the PDC modules which could have one or more auxiliary pulse inputs, a list containing the available sub-devices will be displayed here.

- "Virtual sub-device" – serves to select the additional input channel of a zelsius®C5 heat meter or a PDC module. If one of the available sub-devices is selected, the parameter window will show the available parameters for this.

Total       Component       Help         Image: Component       Help       Image: Component       Help         Medua       10       Ump       Image: Component       Help       <	Genfigurator						
Parameter       Value       Unit         M-Bus Address       1	Tools Component Help						
Parameter       Value       Unit         M-Bus Address       1	11. 0	47				:	ZENNER All that counts.
M-Bus Address       1       Image: Selies and Market	Parameter	Value	Unit	Device			
Device serial number       01023231       Image: Control of the series of the s	M-Bus Address	1		Device	/pe  series		
Medium       COLD_WATER       Image: Cold of the second of the se	Device serial number	01023231		Virtual subdev	rice 1: 0102323	1.781	
Impute value       10       V/Imp         Accumulatad input value       0.00       m <sup>2</sup> Input/Output function       Input       Imput         Input resolution       0.00m <sup>2</sup> Imput         Imput resolution       Imput       Imput         Imput resolution       0.00m <sup>2</sup> Imput         Imput resolution       Imput       Imput         Imput       Imput       Imput         Imput resolution       Imput       Imput         Imput       Imput       Imput         Imput       Imput       Imput         Imput       Imput       Imput	Medium	COLD_WATER		Deservation des aviations	1: 0102323	1281 1281	
Accumulatad input value       0.00       m²         Input/Output function       Input       Imput         Input resolution       0.00m²       Imput         Imput resolution       0.00m²       Imput         Imput resolution       0.00m²       Imput         Imput resolution       Imput resolution       Imput resolution         Imput resolution       Imput resolu	Impulse value	10	l/Imp	Farameter description	2: 0202323	1281 1281	
Input Voluput function       Input       Imput value         Input resolution       0.00m <sup>2</sup> Imput value         Imput resolution       Imput value       Imput value         Imput resolution       Value changed color       Value changed color	Accumulatad input value	0.00	m <sup>2</sup>				<u>^</u>
Input resolution       0.00m <sup>2</sup> Imput resolution       Imput resolution         Imput resolution <td< td=""><td>Input/Output function</td><td>Input 💌</td><td></td><td></td><td></td><td></td><td></td></td<>	Input/Output function	Input 💌					
Read only color Is function color Value changed color	Input resolution	0.00m <sup>3</sup>					
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							<b>V</b>
Read only color Is function color Value changed color							
Read only color Is function color Value changed color							
Is function color Value changed color				Read only color			
Value changed color				Is function color			
				Value changed color			
Read Write Save					Read	Write	Save

Figure33 – Available parameters for a selected sub-device

The parameters for the additional I/O's are not protected from the metrological seal and could be modified as follows.

Particular for Zelsius C5 heat meters:

- o M-Bus Address will change the Primary address of the selected sub-device
- Device serial number you could modify the M-Bus serial number for this pulse input (ex. synchronize it with the connected meter serial number).
- Medium define the M-Bus medium for this pulse input.
- Impulse value define the pulse weight for this input.
- Accumulated input value this is the electronically accumulated meter index which will be transmitted over the M-Bus. The value could be manually edited to synchronize it whit the connected meter mechanical index.
- Input/Output function this will change the function of the sub-device. It could be defined as:
  - Input as a pulse counting module



- Output as pulse output for the available unit (ex. Energy)
- Bus Controlled as remote controlled over M-Bus but it serves as "Disabled" as well.

Input resolution – define the measuring unit and the display resolution.
 Particular for PDC modules:

- M-Bus Address will change the Primary address of the selected sub-device (PDC M-Bus only)
- Serial number you could modify the M-Bus serial number for this pulse input (ex. synchronize it with the connected meter serial number).
- Medium define the M-Bus medium for this pulse input.
- Impulse value define the pulse weight for this input.
- Radio activ define if the radio channel is enabled or disabled for this input
- Manufacturer is possible to enter the Manufacturer Identification for the connected meter according to the Flag manufacturers ID
- Input resolution define the measuring unit and the display resolution.
- M-Bus Generation Is possible to enter a specific revision number for the connected meter
- Accumulated input value this is the electronically accumulated meter index which will be transmitted over the M-Bus. The value could be manually edited to synchronize it whit the connected meter mechanical index.
- Clear warnings will set back all messages generated from not critical failures.

**Note**: The sub-devices could have different identification numbers which depends from the device configuration. In case of the Zelsius C5 heat meters, these could be the followings:

a) In The sub-devices have the last 6 digits from the main meter serial number:

Device type	Serie3
Virtual subdevice	>: 43023231;ZRI
	>: 43023231,ZRI
	1: 01023231;ZRI
	2: 02023231;ZRI
	3: 03023231;ZRI

Figure34 – Available sub-devices for a zelsius®C5 heat meter with 3 additional inputs programmed as 4 virtual device mode

		,	~~~	 	
Virtual subdevice	>: 43023231;ZRI				•
	>: 43023231;ZRI 1: aaaaaaaa;ZRI				
	2: bbbbbbbbb;ZRI 3: cccccccc;ZRI				

b) The sub devices have "aa..", "bb.." and "cc.." as serial number:

Figure35 – Available sub-devices for a zelsius®C5 heat meter with 3 additional inputs programmed as Compact M-Bus mode

c) The sub devices have the same serial number as the main meter:

Virtual subdevice	>: 43023231;ZRI
	>: 43023231;ZRI
	1: 43023231;ZRI
	2: 43023231;ZRI
	3: 43023231 ZRI

Figure 36 - Available sub-devices for a zelsius @C5 heat meter with the 3 additional inputs programmed as pulse output or "disabled"

# 2.5.5 Parameter description window

The parameter description window serves as description field for a selected parameter. In the later software releases these descriptions will be more detailed.



#### 2.6 Device Collector

The "DeviceCollector" component controls bus segments. Bus can be understood as a single device, cable bus system or a remote group. Required information about the bus systems can be obtained when using this component. With "DeviceCollector", the bus systems can be scanned by address, the addresses of single meters can be changed and generally, the information of bus systems can be controlled as well. "DeviceCollector" also includes M-Bus Protocols.

The "DeviceCollector" component actually forms a base for the Designer and Configurator modules and deserves also as a primary reading module for devices. If a device is found by the "DeviceCollector" component, the other components can also access to the information and work with them.

Such being the case, it is very important to configure, scan or add manually the correct device type to the Device Collector's "Device list" before to switch to the suitable Software component to change the parameters in a ZENNER electronic meter.

#### 2.6.1 Device Collector – Setup

The Device Collector interface main window contains 4 further tabs. The last Tab named "Setup" contains the settings how this component further will be used.

Gen DeviceCollector	
File DeviceList Device Read Component Help	
	ZENNER All thet counts.
Device list       All parameters       Device parameter       Setup         Base settings       Mode       MBusPointToPoint       Image: Comparison of the set of th	Minomat settings Read from date 01.01.1900 Read to date 14.11.2014 Serial Set Default Settings select
	Break loop Back

Figure37 – The Device Collector main window with the "Setup" tab

The following groups and options are available:

- Base settings:
  - "Mode" first of all, a bus mode must be chosen. The following options are available:
    - "M-Bus point-to-point can be understood as a Point to Point connection using the M-Bus protocol. That means that the layers are still the same as in the basic Meter Bus but there is just one single meter connected. The device is read out directly without having to address the connected unit.
      - As a sub-category, in M-Bus point-to-mode you must choose the correct device type from this window and add it to the device list:



Add device by parameter	ZENNER All thet counts.
Device type	Address
COMMON MBUS DEVICE	unknown ¥
ZENNER Serie1 (multidata \$1/N1)	Serial number
ZENNER Serie2 (celsius C2.multidata WR3)	unknown ¥
ZENNER Serie3 (C5)	Cancel
ZENNER EDC	Add

Figure 38 – The "Add device by parameter" window in point-to-point mode

**Note:** in point-to-point mode, only one device could be in your device list. If previously other device was in this list inserted, this must be manually removed / deleted.

- "M-Bus" is an abbreviation that stands for Meter Bus (M-Bus). It is formed by four layers: Physical, Data Link, Application, and Network Layer, out of normally used seven layers. It is a type of a bus system that is able to connect a big amount of devices, up to hundreds with an acceptable transmission speed over a long distance, up to several kilometers. M-Bus is widely used because of the high transmission integrity which is crucial since the transferred data is used for billing the end users.
- Relay device common M-Bus device, other than ZENNER products.
- "Repeats on error" defines in how many times Device Collector tries to read a device out before an error is detected.
- "Scan start address" is usually set to "0" but can also be changed into a different value. It is the lowest address where the command "Scan by address" starts to search for devices. It can be "0" but also a higher address number.
- "Scan start serial number" has usually a zero value at the end since the Device Collector starts scanning from the back but can also be set to a different value.
- "Organize start address" organizes the M-Bus short addresses of read meters. It sets the lowest address for the organize command "Organize all addresses". Changes the addresses of meters from the assigned value, e.g. from 1 up to 20 in one building where there is 20 meters and in the next building from 21 up to 40 with another 20 meters.
- "Cycle time [sec.]" defines the time between two read out cycles if cycle reading is needed.
- "Multi telegram" is applied for devices which delivers the M-Bus parameters in more the one single telegram. For zelsius® C5 devices this option must be enabled.
- "Application reset" this will send an application reset which sets back the device to the initial state before reading.
- "Initialization of Slave (SND\_NKE) initialization of a device before reading.
- "Only secondary addressing" box when checked forces DeviceCollector to use the secondary addressing for all of the operations. This function is important for bus systems that are not completely known. In case, that the commands are sent to such a system, it can also be sent to the unknown devices with the same address therefore it is crucial to find all of the devices first before the requests are sent.
   Note: If during the device searching procedure a primary addressing function is called, this will disable automatically this function! Please verify if necessary!
- "Fast secondary addressing" is faster therefore it saves time. Select, Read and Deselect functions are the ones that operate with the bus systems. In case of this function GMM does not employ the Deselect function. It can be used when the bus system is installed in a correct way.
- "Keep existing destination address" means that the addresses of read devices are not allowed to be changed. Normally, it is not needed to assign the same address to two or more devices. This function can be used e.g. when resetting all of the devices into "0". When this function is not checked and when changing an address of one



device to the address that has already been assigned to another device, the other device is assigned the closest available address.

- "Change interface baud rate too" in this case interface stays for an AsyncCom component. When changing the baud rate of the device it is automatically changed in "AsyncCom" settings as well.
- "Use external key signal for reading": This function can be used only in combination with the MinoConnect. If this box is checked, the "Read" function of the DeviceCollector can be started by pressing a key on the MinoConnect.
- "Beep signal on read result": If this box is checked, a beep signal sounds as soon as "read" function is finished.
- ZDF log file:
  - Define the path and select the file into where the meter readings were stored.
     Note: You could create a file with your text editor (Notepad) then change the file extension in ".zdf"
  - "Add all read data to ZDF log file" enabling this, all your readings performed with the Device Collector will be add to the ZDF file.
- Minomat settings this option is available only for special licences
  - "Read from date": the date, from which data should be read
  - $\circ$  "Read to date": the date, up to which data should be read
  - "Serial": enter the serial number of the Minomat
- Set default settings button will set the setup options to default values.

#### 2.6.2 Device Collector - Device list

After scanning a bus, all of the known devices are shown in the "Device list" window. The way how to scan busses is described in the Main Menu under Bus options. Not all of the information of the devices and the bus system can be seen directly by reading the bus. The information that is provided directly concerns a manufacturer, serial number, device type, address and device info text. If the read out of bus systems is successful, the "Read ok" message appears in the very left down corner.

IsSel     SelRep     ReadRep     DeselRep     Device       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep       Image: SelRep     Image: SelRep     Image: SelRep     Image: SelRep     Imag
Image: Constraint of the sector of the se
Image: Constraint of the sector of the se

Figure39 – The Device Collector's "Device list" with some found device, the scanning still running



# 2.6.3 Device collector – All parameters

This window shows values of the connected devices. When reading the bus out, the options from the main menu "Read", "Read selected device" or "Read all devices" have to be selected. The screenshot displays the "All parameters" window together with the readings from the devices which are in the "Device list" above.

Gevice Device	Collector							
File Devic	File DeviceList Device Read Component Help							
Device 0;QM[5 8];1.05 980;TIN P[53];1.	Device list         All parameters         Device parameter         Setup           0.QM[54].0.QM[55].0.TIMP[32]:1.11.2013;TIMP[33]:1.10.2013;TIMP[34];1.09.2013;TIMP[35]:1.08.2013;TIMP[36];1.07.2013;TIMP[37]:1.06.2013;TIMP[3]         1.05.2013;TIMP[39]:1.04.2013;TIMP[40]:1.03.2013;TIMP[41]:1.02.2013;TIMP[42]:1.01.2013;TIMP[43]:1.01.1980;TIMP[44]:1.01.1980;TIMP[44]:1.01.1980;TIMP[45]:1.01.1980;TIMP[45]:1.01.1980;TIMP[45]:1.01.1980;TIMP[51]:1.01.1980;TIMP[51]:1.01.1980;TIMP[52							
	RTIME	SID	MAN	GEN	MED	RADR	TIMP	
•	18.11.2013 16:5	43013847	ZRI	136	HEAT_OUTLET	5	18.11.2013 16:51 1	
	18.11.2013 16:5	1013899	ZRI	136	WATER	2	1	
	18.11.2013 16:5	2013899	ZRI	136	HOT_WATER	3	1	
	18.11.2013 16:5	3013899	ZRI	136	OTHER	4	1	
	18.11.2013 16:5	43013899	ZRI	136	HEAT_OUTLET	1	18.11.2013 16:51 1	
<b>▼</b> Filter:		_			Read all	Clear all Break loop	Show all	

Figure 40 – The Device Collector's "Device list" with some found device, the scanning still running

#### 2.6.4 Device collector – Device parameter

After reading one single device, "Device parameter" lists the basic information about this device. The screenshots below shows an example of the "Device Parameter List" after reading the device:



Gara Devi	ceCollector				
File De	viceList Device Read Com	ponent Help			
11. O		🙀 🙀 🙀 🙀			ZENNER All that counts.
Devi	ce list All parameters Device	e parameter Setup			
De	vice Parameter List			Device info	
	Unit	Value	<b></b>	Manufacturer	ZBI
▶	RTIME	18.11.2013 16:56:46		in an arabitation.	
	SID	43013847		Medium:	4
	MAN	ZRI			
	GEN	136		SerialNo:	43013847
	MED	HEAT_OUTLET			
	RADR	5			
	TIMP	18.11.2013 16:55			
	TIMP[8]	1.01.1980			
	TIMP[32]	1.11.2013			
	MWH	0			
	MWH[8]	0			
	MWH[32]	0			
	QM	0			
	TF	89.94			
	TB	5.82			
	TD	84.12			
	QMPH	0			
	kW	0	•		
Read	ok			Break	oop Back

Figure41 – The Device Collector's "Device parameter" with detailed readings from one meter

# 2.6.5 Menus and buttons

# 2.6.5.1 File Menu



- By selecting the menu item "Load device collection" a businfo is loaded from a file into the PC working memory. After selecting the menu item, the file selection window illustrated below opens. Businfo files must have the ending ".bus". The file selection window for businfo files only shows the ".bus" files.



Read Bus Infor	mation	? 🗙
Look in:	🔁 Busses 💽 🔶 🚔 📰 🗸	
My Recent Documents Desktop My Documents My Computer	DefaultBus.bus	
My Network	File name: DefaultBus.bus	Open
Maces	Files of type: Businfo files (".bus)	Cancel

Figure43 – Load device collection window

- If the "Open" button is selected, the businfo data is transferred from the selected file into a working memory. Any businfo data which may still be in the working memory of PC is deleted in the process. The "Cancel" button closes the window without changing the current device collection.
- Save device collection. With this option, a filename must be entered before the current device collection can be saved. If the filename is entered without an extension, it is automatically given the extension ".bus". No other extension can be entered, otherwise a corresponding error message will appear
  - By pressing the "Save" button the current businfo is transferred to the file stated.
  - Press the "Cancel" button to close the window without saving the businfo data.

Write Bus Info	rmation				? 🔀
Save in:	🗀 Busses		• +	E 💣 🎟 •	
	🖬 DefaultBus.bus				
My Recent Documents					
Desktop					
<u> </u>					
My Documents					
My Computer					
<b>(</b>					
My Network	File name:	Example.bus		•	Save
1 IGUES	Save as type:	Businfo files (*.bus)		•	Cancel
Figur	e44 – Save dev	rice collection window			

- Load ZDF file. The abbreviation ZDF stands for Zenner Data File. It is included because of the compatibility reasons. The former ZENNER data files were using such an extension.



- Export as CSV table. This function allows a transfer of the read data into a spread sheet file.
- Export as Excel table. Exports the read data into an Excel table.

#### 2.6.5.2 Device list Menu

All of the "DeviceList" options are available when choosing "MBus" bus mode (see picture on the left hand side). In case of "MBusPointToPoint" some of the functions are disabled (see picture in the middle).

"Delete device list" and "Delete selected device from list" are available after scanning the bus systems in all of the bus mode cases.

DeviceList	DeviceList
Delete device list	Delete device list
Delete selected device from list	Delete selected device from list
Scan by address	Scan by address
Scan by serial number wildcards	Scan by serial number wildcards
Search single device by address	Search single device by address
Search single device by serial number	Search single device by serial number
Add device by parameter	Add device by parameter
Figure45 – Device Collector's device list menu ir	n different device mode view



The "Delete device list" function deletes all device entries in the current businfo located in the working memory

(but not the contents of the currently set businfo file).

Delete selected device from list

It allows erasing of information of selected device or devices out of the displayed bus information.



Addresses from "0" up to "250" are available. By pressing "Scan by Address" button that is located under the main option "Bus", it is possible to reach the connected bus system and read all of the devices that are connected. The main advantage of this function is the fact that all of the devices can be reached and also be differentiated by their own addresses at the same time. The devices are scanned by an address from 0 up if the starting address is not assigned to a different value. It is the fastest way in such a case that the bus system is installed in a correct way.

Sometimes, it can occur that two or more devices have the same address, in such a case employ the "Scan by Serial Number wildcards" function.



In case that the bus system is not installed in a proper way, e.g. some of the addresses of the meters are the same, this function should be employed. It scans all of the meters by serial numbers and expands the list of devices.

Search single device by address





Address	
Primary address (0255):	Cancel
0	Ok
Figure46 – Primary address input window	

The primary address has to be known to use this function. The primary address has to be filled in. Press "Ok" to confirm. If the meter is present in the bus system, it is added to the bus information. If it is wished to quit without searching press "Cancel".

- Search single device by serial number	
Address	
Secondary address (Serial number):	Cancel
0	Ok

Figure47 – Secondary address input window

The serial number has to be known to use this function. The serial number has to be filled in. Press "Ok" to confirm. If the meter is present in the bus system, it is added to the bus information. If it is wished to quit without searching press "Cancel".

This function is disabled when setting "MBusPointToPoint" bus mode.

- Add device by parameter

This function is useful in case that some of the connected devices cannot be found.

First of all, choose the type of device which can be either a "COMMON MBUS DEVICE", "ZENNER Serie1 (multidata S1/N1)", "ZENNER Serie2 (zelsius C2, multidata WR3)", "ZENNER Serie3 (zelsius C5). Afterwards edit one or both of the required information fields - "Address", "Serial Number" and afterwards press "Add" to add this device into the bus system information window.

- "COMMON MBUS DEVICE" represents standard devices. Standard M-Bus commands can be used to edit devices.
- To special devices from ZENNER the not standard norm commands are assigned. The special commands can be used.

Add device by parameter	
41. 0	ZENNER All thet counts
Device type COMMON MBUS DEVICE ZENNER Serie1 (multidata 51/N1) ZENNER Serie2 (zelsius C2,multidata WR3) ZENNER Serie3 (C5) ZENNER EDC	Address unknown Serial number unknown Cancel Add

Figure48 – Device type selection window for point-to-point mode



# 2.6.5.3 Device Menu

Depending on the selected bus mode, different options are available in the main menu "Device". All of the "Device" options are available when choosing "MBus" bus mode (see screenshot). If no bus system has been scanned yet, no "Device" options are available.

Device	
Char	ige address of selected device
Orga	nize all addresses
Set s	elected device to default parameter list
Set s	elected device to full parameter list
Set a	II devices to default parameter list
Set a	II devices to full parameter list
Set s	elected device to 300 baud
Set s	elected device to 2400 baud
Set s	elected device to 9600 baud
Set s	elected device to 38400 baud

Figure49 – Device Collector's device menu

-	Change	address	of s	elected	device
---	--------	---------	------	---------	--------

Address	
Primary address (0255):	Cancel
0	Ok
Figure50 – Primary address input window	

Address of a device can be changed by this function. It is very helpful in such a case that two or more of the devices have the same address.

#### - Organize all addresses

This function is for an organization of the addresses. That means that the addresses can be changed to avoid multiple devices to have the same address. The first assigned address depends on the settings.

Note: When using new devices it is most probable that two or more of them have the same primary address. Therefore, first scan the bus system by serial number wildcards (select "Bus" in the main menu and then "Scan by serial number wildcards") and after finding all of the devices use the "Organize all addresses" function.

 Set selected device to default parameter list; Set selected device to complete parameter list; Set all devices to default parameter list; Set all devices to complete parameter list.

Default parameter list and full parameter list differ in the amount of information given out.

- Set selected device to 300 – 38400 baud

Baud rate is explained in basic terms of the AsyncCom part. It changes the baud rate of the device, therefore the "AsyncCom" baud rate settings have to be modified as well.

#### 2.6.5.4 Read Menu

Depending on the selected bus mode, different options are available in the main menu "Read". All of the "Read" options are available when choosing "MBus" bus mode. The screenshot on the right hand shows



the menu if more than 1 device is present in the device list. If no bus system has been scanned yet, no "Read" options are available.

	Read
Read	Read selected device Read all devices
Read selected device	Read cycle: single device
Read cycle: single device	Read cycle: all devices
Show all parameters	Show all parameters
Get version Get version test cycle	Get version Get version test cycle

Figure51 - Device Collector's Read menu with options

- Read selected device

This function reads the selected device or devices and gives more information just on the selected ones

- Read all devices

It Works on the same principle as the "Read selected device". The only exception is that it reads out the information about all of the devices of the bus system.

- Read cycle: single device
   When activating this function, "DeviceCollector" starts to read the chosen device in cycles.
   The length of a cycle can be defined in the "Setup" window. The cycle time is given in seconds. This function tests the bus system.
- Read cycle: all devices
   When activating this function, "DeviceCollector" starts to read all devices from the device list in cycles. The length of a cycle can be defined in the "Setup" window. The cycle time is given in seconds. This function tests the bus system.
- Show all parameters
   By using "Show all parameters", the last read information about the bus shows up in the "All parameters" window.
- Get version; Get version test cycle.

The functions above serves for a fast check of the quality of the bus system. It is important to notice that these options are usable only for Series2 (zelsius® C2/C3, multidata WR3) and Series3 devices (zelsius®C5). It is not possible to use it with older devices, e.g. multidata S1.

For Series 3 devices, the following screen could be shown:



DeviceCollector	ZENNER All that counts.
Manufacturer = ZRI Medium = HEAT_AND_COOL MBusGeneration = 0x88 Version = 4.4.3:C5 MBusSerialNr = 15093326 BuildRevision = 908 BuildTime = 12.12.2013 14:09 Signature = 0xf31c Hardware = MBus;Combi	▲ ▼ ok

Figure52 – Device Collector's device version window

Manufacturer	<ul> <li>manufacturer codification according to the M-Bus Norm.</li> </ul>
Medium	- measuring medium codification according to the M-Bus Norm
M-BusGeneration	<ul> <li>the M-Bus generation number in hexadecimal format.</li> </ul>
Version	<ul> <li>device Firmware version and type.</li> </ul>
MBusSerialNr	<ul> <li>the device secondary M-Bus address.</li> </ul>
BuildRevision	<ul> <li>build revision for the actual generation number.</li> </ul>
BuildTime	<ul> <li>– last build date and time.</li> </ul>
Signature	<ul> <li>metrological signature.</li> </ul>
Hardware	<ul> <li>device hardware type.</li> </ul>

#### 2.6.5.5 Component Menu

In case of this option, it is possible to switch to the "Start Window", "Global Meter Manager" window, go back to the previous window, quit "GMM" or switch into "Designer" (if available) and "AsyncCom" components.

			_
	001	- CO 1	ъ.e.
 	_	101	

StartWindow	Ctrl+Shift+W
GlobalMeterManager	Ctrl+Shift+G
Back	Ctrl+Shift+B
Ouit	Ctrl+Shift+O
 Designer	Ctrl+Shift+C
AsyncCom	Ctrl+Shift+A

Figure53 – Device Collector's Component window

# 2.6.5.6 Help Menu

If choosing "Help" button the help window shows up.

Under the main menu, there is a line of picture buttons that allows the user to work faster.

41.77		ZENNER All that counts.
100 C 100		

Here are their functions from the left to the very right:





Figure54 – Device Collector's header bar and button overview

Functions are described more detailed in Main Menu functions.

# 2.6.5.7 Context menu

Some widely used functions are grouped together in a context menu. By right-clicking in the "DeviceList" window opens the following menu:

Read device Show device data Set primary address Delete from device list Set to default parameter list Set to full parameter list

Show/Hide columns

Figure55 – Device Collector's context menu

- Read device
- This function reads the selected device and gives more information just on the selected ones. Show device data
- By using "Show device data", the last read information about the bus shows up in the "Device parameter" window.
- Set primary address

Address	
Primary address (0255):	Cancel
0	Ok

Figure56 – Primary address input window

Address of a device can be changed by this function. It is very helpful in such a case that two or more of the devices have the same address.

- Delete selected device from list

It allows erasing of information of selected device out of the displayed bus information.

- Set default parameter list; Set full parameter list



Default parameter list and full parameter list differ in the amount of information given out.

Show/Hide columns

With this option you can change the layout of the table in the display.

Show/Hi <mark>/</mark> olumns	×
Nr.	
🗹 Manuf.	
✓ SerialNr.	
🖌 DeviceType	
🖌 AddrOk	
Address	
🔲 IsSel	
🗌 SelRep	
🗌 ReadRep	
🗌 DeselRep	
DeviceInfoText	
ОК	_//

Figure57 – Column show/hide options window

By selecting resp. deselecting the checkbox it is possible to show resp. hide columns.

# **3 CUSTOMER SUPPORT**

Please contact your local sales partner to obtain the contact details of your local ZENNER support. The international helpdesk can be reached under <u>international.support@zenner.com</u>.

CONTACT:

ZENNER International GmbH & Co. KG Römerstadt 6 D-66121 Saarbrücken