Operating Instructions

Software for archive, administration and display of DTM data

VEGA DataViewer

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Contents

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1 About this document

1.1 Function

This operating instructions manual provides all the information you need for installation and commissioning. Please read this information before setting up the instrument and keep this manual accessible in the immediate vicinity of the device.

1.2 Target group

This operating instructions manual is directed to trained personnel. The contents of this manual must be made available to the qualified personnel and implemented.

1.3 Symbols used

Document ID
This symbol on the front page of this instruction refers to the Document ID. By entering the Document ID on www.vega.com you will reach the document download.

Information, tip, note
This symbol indicates helpful additional information.

Caution: If this warning is ignored, faults or malfunctions can result.

Warning: If this warning is ignored, injury to persons and/or serious damage to the instrument can result.

Danger: If this warning is ignored, serious injury to persons and/or destruction of the instrument can result.

Ex applications
This symbol indicates special instructions for Ex applications.

SIL applications
This symbol indicates instructions for functional safety which must be taken into account particularly for safety-relevant applications.

- **List**
  The dot set in front indicates a list with no implied sequence.

→ **Action**
This arrow indicates a single action.

1 **Sequence of actions**
Numbers set in front indicate successive steps in a procedure.

2 For your safety

2.1 Authorised personnel

All operations described in this documentation must be carried out only by trained, qualified personnel authorised by the plant operator.

2.2 Appropriate use

VEGA DataViewer is a software for archiving, administration and display of data and documentation of communication-capable instruments.

2.3 Warning about incorrect use

Inappropriate or incorrect use can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting, adjustment or configuration. Thus damage to property, to persons or environmental contamination can be caused. Also the protective characteristics of the instrument can be influenced.

2.4 General safety instructions

Installation and use of the software are carried out at your own risk. We do not accept liability for consequential damage.

2.5 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified according to DIN EN ISO 14001.

Help us to meet with these requirements.

3 Product description

3.1 What is VEGA DataViewer?

With this software you get a tool for archiving, administration, display and analysis of DTM data which will be stored in a database. The following data formats or types can be integrated:

- Measured value recordings
- Event files
- Echo curve files
- Service recordings
- Impedance curve recordings
- PACTware project files
- Backups
- Documentation

The stored data can be retrieved via a device list using the serial number or the device TAG for viewing/evaluation. Hence the corresponding data can be retrieved centrally at any time.

4 Software installation

4.1 System requirements

You can find the system requirements in the annex at the end of this manual.

4.2 Install DataViewer

The VEGA DataViewer is a part of the DTM Collection and cannot be bought or installed as individual software. The DataViewer is installed automatically while installing the DTM Collection of the VEGA DTM package.

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5 Adjustment

5.1 Start DataViewer

Start the software via the Windows start menu under " *VEGA DTM Tools*".

The menu language orientates on the adjusted DTM language. As an alternative, it can be switched over temporarily under " *Settings*" - " *Options*".

Information:
To ensure the support of all functions, you should always use the latest software version. The latest DTM Collection can be downloaded free-of-charge from our homepage.

Adjustment system

The DataViewer user interface is divided into three main sections. These sections fulfil the functions described below:

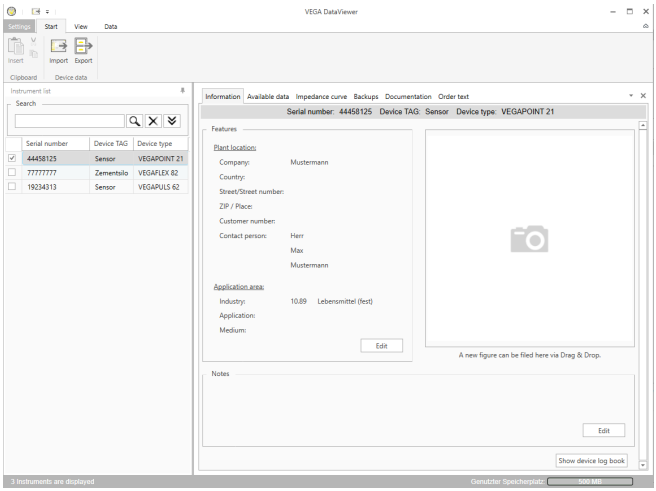

Fig. 1: User surface VEGA DataViewer

1 Menu bar (upper screen section)
2 Device list (left screen section)
3 Device data (right screen section)

- **Menu bar:** Provides the necessary commands and functions
- **Device list:** Is used to select the device which should be analyzed in the device data section
- **Device data:** Here, all information is presented centrally which are stored with the selected device

5.2 Definition of device data/recordings

The VEGA DataViewer can import the following device data and recordings which were created with the respective device DTM.

Measured value recordings

The parameter adjustment of measured value recordings is possible with the new sensor generation so that the sensor is recording measured values automatically. This measured value memory in the instruments can be read out any time with the DTM and composed in the DataViewer to a measured value history. In addition, measured values recordings can be generated with the DTM by recording of measured values through the DTM. The two measured value memories are administrated separately in the DataViewer and are called " *Measured value (DTM)*" and " *Measured value (device)*".

Event files

The new sensor generation has the possibility of storing parameter changes as well as events, such a current failure, with a time stamp and the NAMUR status in the sensor. When reading out of the device, these data will be archived in the DataViewer and composed to a history.

Impedance curve files

With a VEGAPOINT, impedance curve recordings can be generated with the DTM as the DTM itself records impedance curves. The impedance curves are managed in the DataViewer and are called " *Impedance curve*.

Echo curve files

In the new sensor generation, parameter settings can be made that allow the sensor to record echo curves automatically. The echo curve memory in the instrument can be read out at any time with a DTM and compiled into a history in the DataViewer. On instruments with an echo curve memory, the echo curve of setup is also archived in the DataViewer. Echo curve recordings can also be generated with the DTM, whereby the DTM itself records the echo curves. The two echo curve memories are administrated separately in the DataViewer and are called " *Echo curve (DTM)*" and " *Echo curve (device)*".

PACTware project files

The PACTware project files cannot be administrated because the DataViewer has no file management. If the PACTware files are imported, the DataViewer extracts the contained instrument data and archives the extracted data. This corresponds to the backup file with the device parameters.

Backups

Backups contain an image of all parameters of an instrument. With a backup, it is possible to restore an instrument with the parametrisation saved in the backup at any time.

Documentation

PDF files are created at different places in a DTM. These documentations such as the instrument documentation or the results of a conducted instrument test are managed in the "Documentation" section.

Service recordings

With a service recording, the following recordings of an instrument are automatically recorded and archived at the end of the service recording in the DataViewer.

- Measured value recording with DTM
- Echo curve recording with DTM
- Event list from device
- Backup file with device parameters

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Fig. 2: Starting a service recording

Information:
No archiving takes place in the DataViewer during a service recording. The data is transfered only after the service record is finished.

Fig. 3: Terminating a service recording

5.3 Import/Export of device data

Import

When recording data, creating backups or documentations, the data are automatically stored and automatically imported into the DataViewer. With all other data formats, the import must be carried out manually via the button " *Import from file*". After selecting the appropriate file during a manual import, a window is displayed in which additional information on the device, location, contact person, … can be entered.

After import, each device can be selected via the serial number or device TAG.

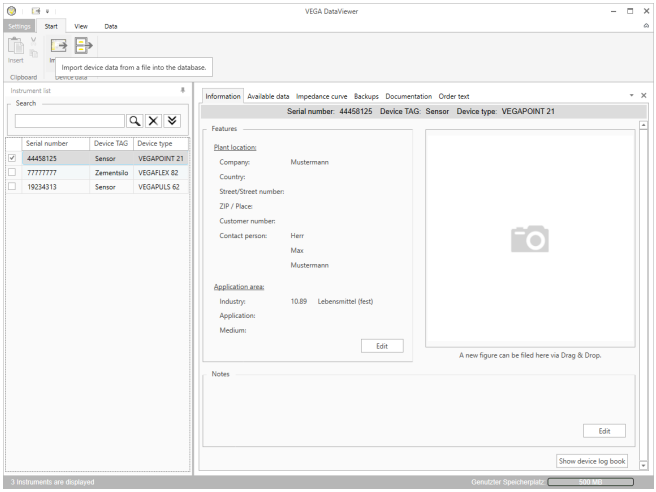

Fig. 4: Import of device data

Export

To export the stored data of a device, mark the device in the device list and push the button " *Export*". Then you can select the desired storage location for the file. The generated VDS file contains all stored information concerning the selected device.

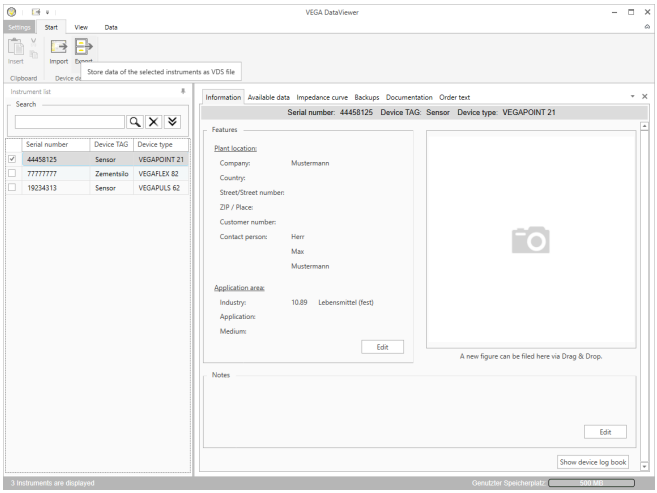

Fig. 5: Export of device data

5.4 Display of device information

Instrument selection

Each listed device is identified and archived by its serial number. All stored devices are listed in the device list on the left-hand side of the screen. The desired device is selected by clicking with the left mouse button on the serial number or the device TAG. In the case of extensive device lists, the quick search function can also be used in the upper section of the device list. All characteristic fields of the information field are searched.

After an instrument is selected, all information recorded by an instrument is downloaded automatically into the device data section. To ensure clear, well-structured content, this section is subdivided as follows and can be reached via tabs.

- Information
- Available data
- Echo curve (DTM)
- Measured value (DTM)
- Events
- Backups
- Impedance curve
- Documentation

Note:
The four pages " *Information*", " *Available data*", " *Appendices*", " *Order texts*" always exist in conjunction with every archived device. Additional pages appear if additional data corresponding to a device have been stored.

Information

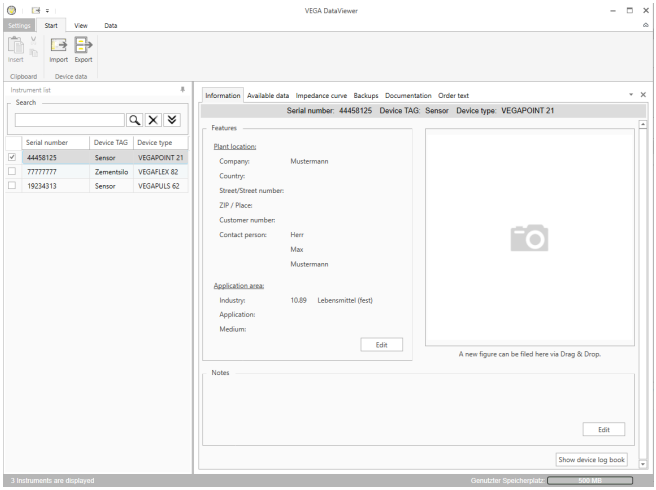

Fig. 6: Device data - Information

In the information window, you can store information on plant location, contact person and measurement loop as well as comments. All information in this section can be found via the quick search in the device list.

Available data

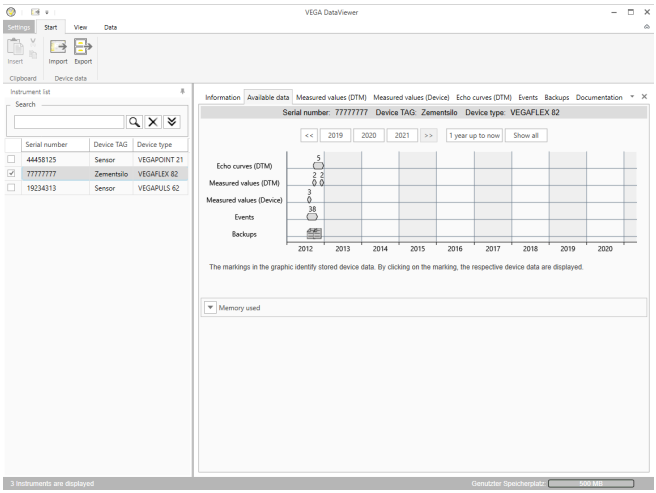

Fig. 7: Device data - Available data

This window provides an overview in graphic form of all data stored from a device. The different data objects are represented in a calendar graphic. The contained graphic symbols have a hyperlink function, i.e. each data object can be directly opened in the appropriate view with a mouse click. Depending on the selected calendar resolution,

the software composes individual symbols into one symbol. In this case the number of compiled data objects is indicated by a number above the symbol. The function " *Memory usage*" gives an overview of the utilized memory per device and data type. Functions for targeted deleting of data objects are also provided here.

Echo curve (DTM)

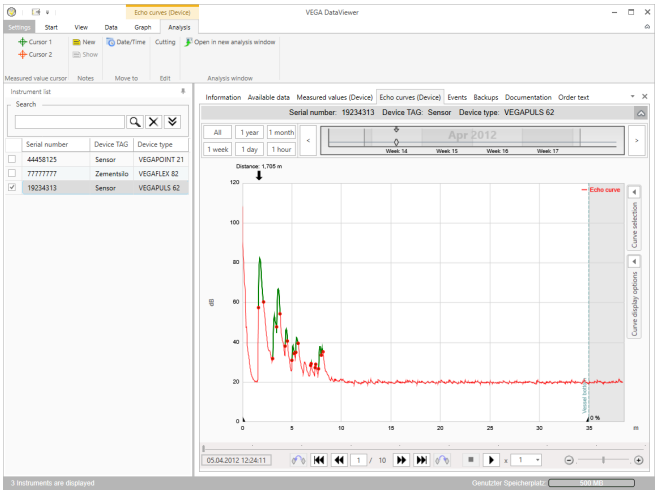

Fig. 8: Device data - Echo curve (DTM)

In this window, the imported data blocks are each displayed by individual symbols in the calendar bar. If data blocks were imported with time overlap, the DataViewer treats the data blocks as one coherent block. The same applies if two neighbouring data blocks lie close together with respect to time (< 2 minutes).

Different functions for navigating the curves as well as for adapting the presentation and analysing data are provided. For the operation of these functions, the menu bar is extended by the tabs " *Presentation*" and " *Analysis*". In addition, corresponding control elements are placed at various points around the echo curve graphic.

Measured value (DTM)

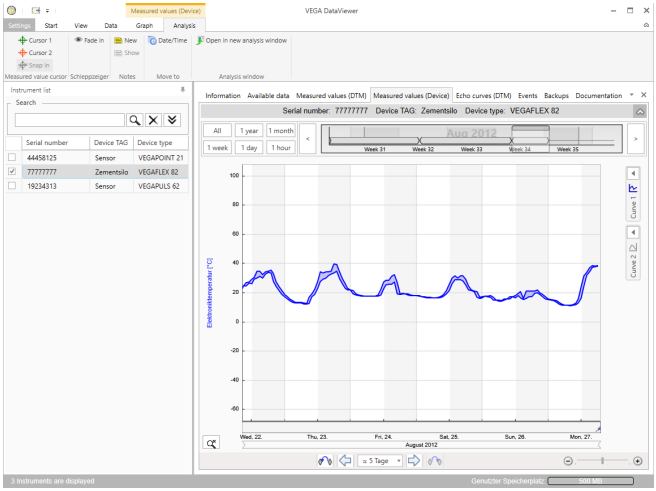

Fig. 9: Device data - Measured values

In this window, the imported data blocks are each displayed by individual symbols in the calendar bar. If data blocks were imported with time overlap, the DataViewer treats the data blocks as one coherent block. The same applies if two neighbouring data blocks lie close together with respect to time (< 2 minutes).

Different functions for navigating the curves as well as for adapting the presentation and analysing data are provided. For the operation of these functions, the menu bar is extended by the tabs " *Presentation*" and " *Analysis*". In addition, corresponding control elements are placed at various points around the measured value graphic.

Events

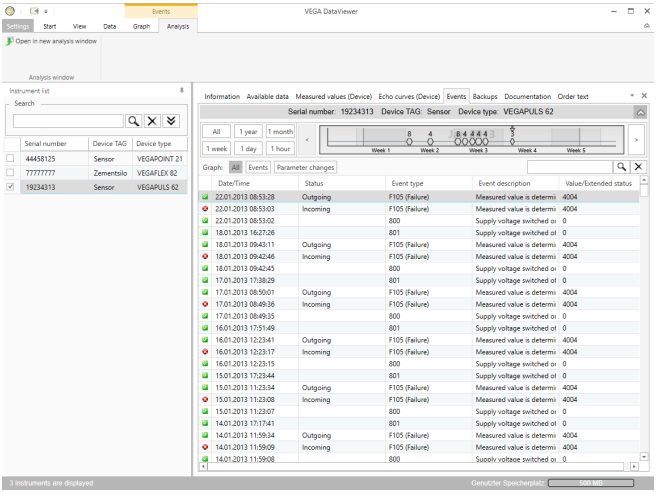

Fig. 10: Device data - Events

In this window, the imported events are each displayed by individual symbols in the calendar bar. If two or more neighbouring data blocks lie close together with respect to time (< 2 minutes), the DataViewer treats the data blocks as one coherent block. In this case, a number above the symbol represents the number of compiled events.

Different functions for navigating the recordings as well as filtering the presentation and searching are provided. For operation of these functions, the DataViewer offers control elements at various points around the event table.

Backup

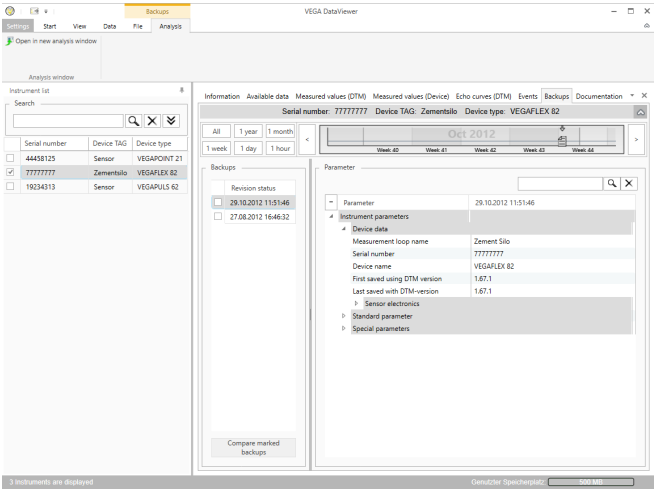

Fig. 11: Device data - Backup

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In this window, the imported backups are each displayed by individual document symbols in the calendar bar. If two or more neighbouring backups lie close together with respect to time (< 2 minutes), the DataViewer treats the data blocks as one coherent block. In this case, a number above the document symbol represents the number of compiled backups.

Different functions for navigating the recordings as well as filtering the presentation and searching are provided. For operation of these functions, the DataViewer offers control elements at various points around the backups.

Impedance curve

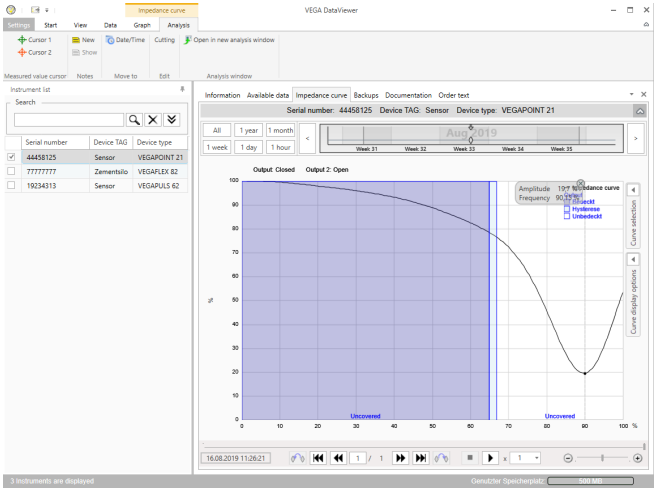

Fig. 12: Device data - Impedance curve

In this window, the imported data blocks are indicated by individual symbols in the calendar bar. If data blocks with overlapping times were imported, the DataViewer regards the data blocks as a contiguous block. The same applies if two adjacent data blocks are close together in time (< 2 minutes). Various functions are offered for navigating in the curves and for adjusting the display and for analysis. To operate these functions, the menu bar is extended by the tabs " *Presentation*" and " *Analysis*". In addition, corresponding adjustment elements are arranged around the impedance curve graphic.

Documentation

The archived documentations are managed and displayed in this area. The name of the documentation contains the serial number, the date and the type of documentation. The documentation can be displayed, printed or saved again locally with a double click in the PDF Viewer.

5.5 Share device data with service

If the support of the VEGA service is required for the interpretation of the device data, the device data can be released for inspection by a service employee with the " *Share*" function. Before this, the device

data must be synchronised with myVEGA, only then the " *Share*" is available. Once the support by the service employee has ended, the release of the device data can be cancelled.

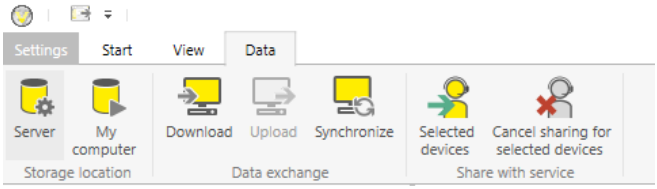

Fig. 13: Release of the " Share" function for the VEGA service

The following adjustment options are available for sharing or cancelling device data:

- Via the menu bar " *Data*" with the adjustment elements of the group " *Share with service*"
- Via the right mouse button on a selected entry of the device list

6 Deinstallation

6.1 Deinstallation procedure

The DataViewer is a part of the DTM Collection and cannot be installed separately. Only by deinstalling the DTM Collection or the DTMs is it possible to deinstall the DataViewer.

7 Supplement

7.1 System requirements

Hardware	
Processor	CPU 1 GHz or higher
Memory	At least 4 GB RAM or higher
Hard disk	At least 10 GB free memory
– Interfaces	Bluetooth/USB/Ethernet

Software	
Operating system	Windows 10/11 (32/64 Bit)
Software	Microsoft .NET Framework 3.5, 4.6.1 and .NET6

7.2 License agreements

7.2 License agreement for VEGA DTM Collection

The DTM Collection consists of the actual software and - depending on the scope of delivery - the accompanying storage media as well as the corresponding documentation, such as online help, etc.

This end user licence agreement is a contract between the user (either as a natural person or a legal entity) and VEGA Grieshaber KG, Schiltach (VEGA) for the software product.

VEGA DTM Collection.

The **VEGA DTM Collection** is available as "Standard version" or "Full version". In the "Standard version", all standard functions are available. In the "Full version", the storing and printing of data recorded in the sensor, such as measured values, events or echo curves is also possible. The "Full version" also contains the programs "DataViewer" as well as "Tank Calculation".

When the user installs, copies or otherwise uses the **VEGA DTM Collection**, he accepts the following regulations and declares that he has read and understood all requirements and regulations.

7.2 Agreement

VEGA makes the **DTM Collection** available as free-of-charge "Standard version" including Online help via the Internet. The DTM Collection is also available as "Standard version" on DVD. The DTM Collection as "Full version" is only available on DVD.

The **DTM Collection** as "Standard version" is available for free-of-charge use. For the DTM Collection as "Full version" a one-time license fee must be paid. The content of the license agreement for both versions depends on the regulations of this agreement.

7.2 Rights of the user

The **DTM Collection** as "Standard version" can be copied and used on any number of computers. The DTM Collection as "Full version" can be copied and installed on several computers, but cannot be used by more than one user at the same time.

7.2 Warranty

For the **DTM Collection** as "Standard version", VEGA is only liable for intention and gross negligence.

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7.2 Restrictions

The user agrees to neither change, reverse-engineer or compile the software nor extract any its parts. The user agrees to neither rent out or lease the software nor use the software in ways deviating from the regulations of this agreement or allow third parties to do so.

On the basis of this user agreement, the user is authorized to transfer his rights to the **DTM Collection** as "full version" to third parties, under the condition that the complete software product is transferred (including all components, the storage media and the printed material) and that the third party agrees to the terms of this user agreement before using the software product. The user is obliged to make a written agreement with the third party that corresponds to the regulations of this agreement.

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Notwithstanding other rights, VEGA is authorized to terminate this user agreement if the user violates the regulations of the agreement. In such case, the user is obliged to deinstall the software immediately and destroy or give back to VEGA all copies of the software product and all of its components, particularly the software product certificates.

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The proprietary rights and the copyright to **DTM Collection** (including the accompanying printed material and all copies) belong to VEGA or its suppliers and are protected in particular by German copyright laws and international copyright agreements as well as relevant international property rights agreements, in particular TRIPS, RBÜ and WCT, along with other laws and agreements on intellectual property.

7.2 Miscellaneous

As far as no other regulations are mentioned elsewhere in this document, the general terms of sale, delivery and payment of VEGA (www.vega.com/agb) apply – these are an inseparable component of the user agreement and the user must agree to abide by them. German law applies here under exclusion of international civil law. Place of jurisdiction is Mannheim.

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All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.
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