testo EasyClimate · Software

Instruction manual

testo EasyClimate Software

1 Contents

1.1.   About this document

Use

> Please read this documentation through carefully and familiarize yourself with the product before putting it to use. Pay particular attention to the safety instructions and warning advice in order to prevent injuries and damage to the products.
> Keep this document to hand so that you can refer to it when necessary.
> Hand this documentation on to any subsequent users of the product.

i	Knowledge of Windows® operating systems is required when working with the software.

Symbols and writing standards

Representa-tion	Explanation
i	Note: Basic or further information.
1. ... 2. ...	Action: more steps, the sequence must be followed.
> ...	Action: a step or an optional step.
- ...	Result of an action.
Menu	Elements of the program interface.
[OK]	Buttons of the program interface.
... | ...	Functions/paths within a menu.
"..."	Example entries

2 Specifications

2.1. Use

The testo EasyClimate Software configuration and analysis software enhances the functionality of the testo 480 and testo 835 instruments with many useful functions:

• Instrument configuration via software.

• Customer and measurement data management.

• Data import from and data export to instrument.

• Creating, saving and printing measurement protocols from imported data.

• Commenting on measurement values.

2.2. System requirements

i Administrator rights are required for installation.

Operating system

The software will run on the following operating systems:

• Windows 7

• Windows 8

• Windows® 10

Computer

The computer must meet the requirements of the corresponding operating system. The following requirements must additionally be fulfilled:

• Interface USB 1.1 or higher

i Date and time settings will be automatically accepted by the PC. The administrator must make sure that the system time is regularly compared with a reliable time source and adjusted, if necessary, to ensure authenticity of the measurement data.

3 First steps

3.1. Installing the software/driver

1. Insert the program CD into the CD-ROM drive of the computer
   or

   download the program (**www.testo.com/download-center**)
   and unpack the zip file using a suitable compression program.
2. Start the file **TestoSetup.exe**.
3. Follow the instructions of the installation wizard.

When installing under Vista, please pay attention to the following
steps during the installation process:

- The window **User account control** is opened:
  - > Click on **[Next]**.
- The window **Windows Security** is opened:
  - > Choose **Still install this driver software**.

4. Click on **[Complete]** to complete the software installation.

After completion of the software installation, the instrument must be
connected to the PC to continue with the driver installation.

5. Use the USB-cable to connect the instrument to the PC.
- The connection will be set up.

3.2. Starting the software

Starting the EasyClimate software

ℹ️ The software user interface is opened in the language
    of the operating system, if this is supported. If the
    operating system language is not supported, the user
    interface is in English.

> Click on **[Start]** | **Programs** (Windows XP) or **All Programs**
  (Windows Vista, Windows 7) | **Testo** | **testo EasyClimate
  Software**.

ℹ️ On Windows Vista, the window **User account control**
    is opened when the software is started the first time.
    > Click on **Accept**.

> Enter the licence key, see program CD packaging (testo 480) or
  the back of the instruction manual (testo 835).

4 Using the product

ℹ Connection problems and loss of measurement data can
occur when the energy saving or standby mode in your PC
is activated. These functions should therefore be switched
off.

Help button

ℹ The 🕐 help symbol opens/closes the help bar. This button
is available in all menus except the Initial page menu.

4.1. Initial page menu

After starting testo EasyClimate Software, the start screen will
appear.

1 Menu bar with status information (left)
2 Quick access with preview screen

3 Connection manager
4 Configuration of instrument
5 Online measurement
6 Manage archived measurements
7 Program configuration
8 System information
9 Copyright

4.2. Settings menu

Via the **Settings** menu, you can open the **Configuration**, **System information** and **Copyright** menus.

4.2.1. Configuration
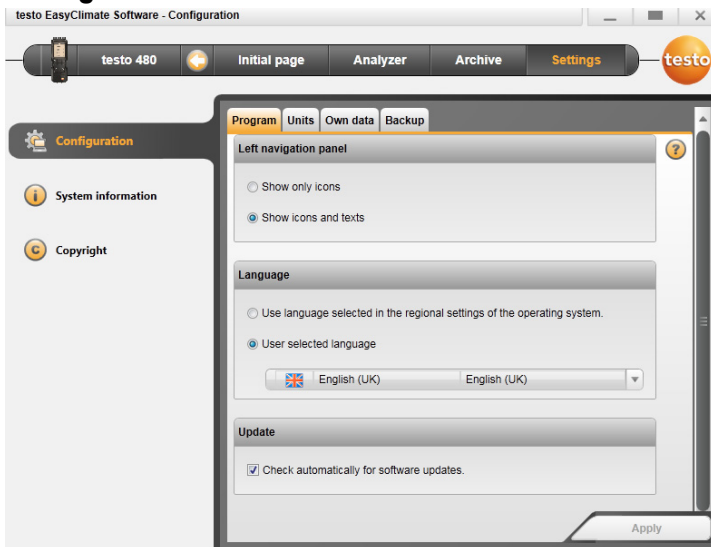
> Choose **Initial page**| **Program configuration**

or

> **Settings** | **Configuration**.

4.2.1.1. Program tab

> **Left navigation panel**: Choose **Show only icons** or **Show icons and texts** | **[Apply]**.
> **Language**: Choose **Use language selected in the regional settings of the operating system.** or **User selected language** | **[Apply]**.
> **Program update**: Choose **Check automatically for software updates** | **[Apply]**.

4.2.1.2. Units tab

> Select the required unit for the individual measurement parameters | **[Apply]**.
> **[ISO units]** | **[US units]**: reset all units to ISO or US | **[Apply]**.

4.2.1.3. Own data tab

> **Own data**: enter/change address data | **[Apply]**. see Fehler! Verweisquelle konnte nicht gefunden werden., page Fehler! Textmarke nicht definiert.

4.2.1.4. Data backup tab

Backup data

1. Specify the directory for data backup: click **[Browse]** .
2. Click **[Perform backup now]**.
- The file **FullBackup[DateTime].zip** is created.

Set reminder for data backup

1. Specify the directory for data backup: click **[Browse]**.
2. List field: specify the cycle for automatic data backup | **[Apply]**.
- When the software is started, a reminder that backup is due is given in a set cycle.

Restore backed-up data

✓ Data has been backed up.

1. Open the following folder in the File Explorer:
   • Data backup directory (path see **Settings** | **Configuration** | **Data backup**)
   • Data directory (path see **Settings** | **System information** | **PC**)
2. Close the software.
3. Unzip the contents of the folder to be restored **FullBackup[DateTime].zip** from the data backup directory into the data directory.
4. Open the software.

4.2.2. System information

The **System information** menu has 3 tabs showing important information about the PC used and the software. It is useful to have this information to hand when contacting our hotline as it will help in diagnosing errors.
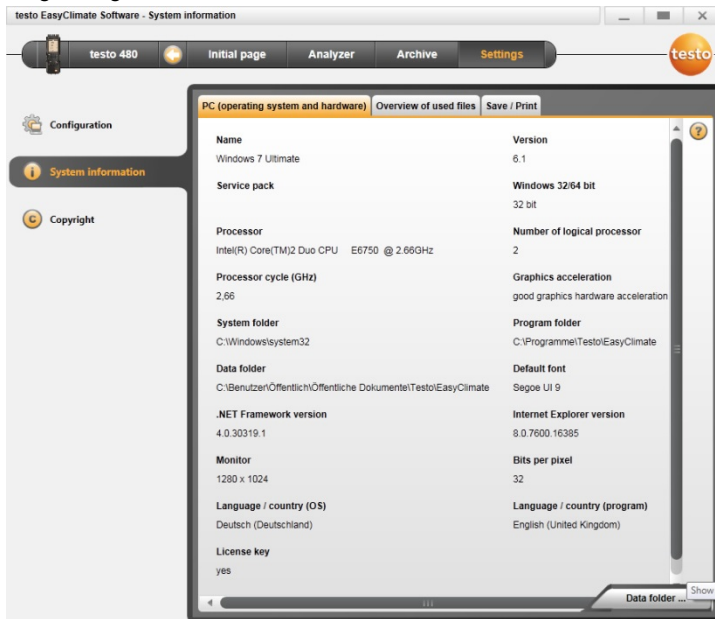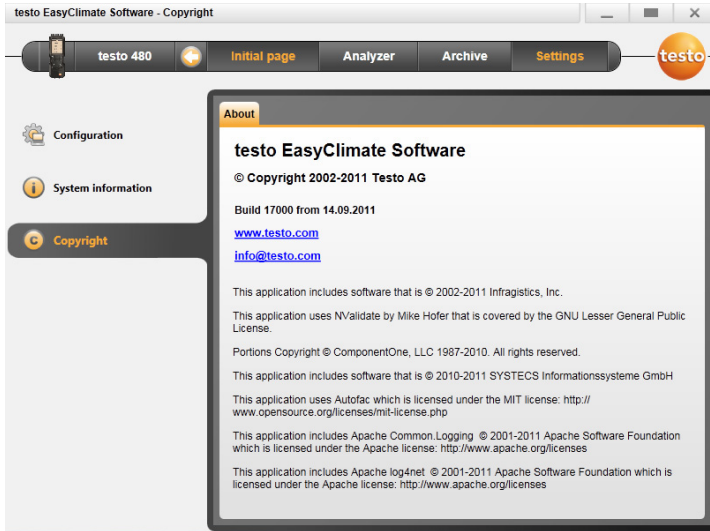

> Choose **Settings** | **System information**.

Executable actions

> **[Data directory...]**: Call up directory.

4.2.3. Copyright

> Choose **Settings** | **Copyright**.
- The **About** tab is opened.

4.3. Instrument menu

4.3.1. Connection manager

✓ Instrument connected to PC.

> ℹ An instrument connected to the PC is automatically connected to the software. If several instruments are connected to the PC, the required instrument can be connected in the connection manager.
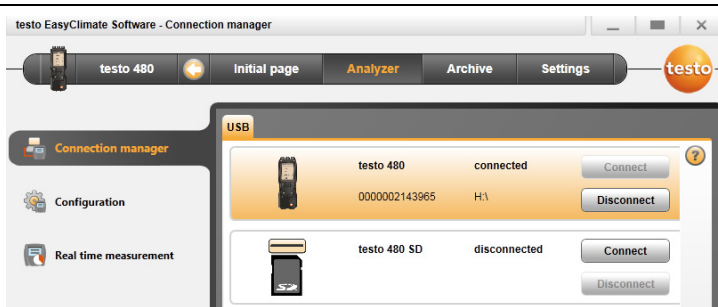
testo 480 only: The SD card can be connected in the same way as an instrument. However, some menu options (e.g. Instrument) cannot be selected.

> **Initial page** | **Connection manager**

or

> **Instrument** | **Connection manager**.
- Instruments are displayed with picture and type designation.

> Choose the instrument and click on **[Connect]**.

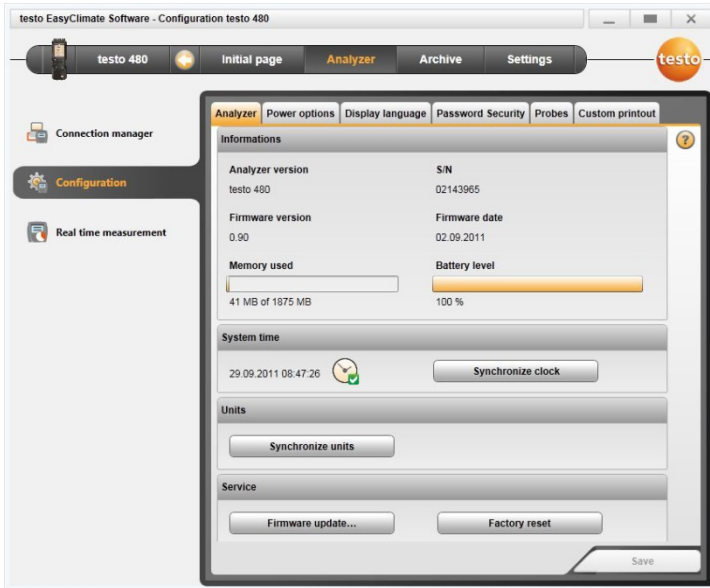ℹ︎   Only one instrument can be connected at a time.

- The instrument appears in the status display to the left of the menu bar.
- The button **[Connect]** changes to **[Disconnect]**.

If not possible to connect:

> Choose **System control** | **Device manager**.

4.3.2.   Configuration

✓ An instrument is connected to the testo EasyClimate Software
    and displayed in the status bar.

> Choose **Initial page** | **Configuration of instrument**

or

> **Instrument** | **Configuration**.

4.3.2.1.   Instrument tab

The **Instrument** tab shows important information about the
connected instrument.

> **[Synchronise now]**: Transfer PC date and time to the
  instrument.
> **[Synchronise units]**: Transfer units set in the **Settings** menu
  manually to the connected instrument or probes.
> **[Firmware update]** (testo 480 only): Import the downloaded
  update firmware file to the instrument.
> **[Factory reset]**: Carry out a factory reset of the instrument.

4.3.2.2. Configuration tab (testo 835 only)

> Disable/enable alarm: disable/enable **Beeper** checkbox | **[Save]**.
> Disable/enable alarms and set alarm thresholds: disable/enable **Infrared**, **Thermocouple**, **Surface moisture** or **Dewpoint distance** checkbox and enter limits | **[Save]**.
> Disable/enable laser: disable/enable **Laser** checkbox | **[Save]**.
> Set display brightness: move slider | **[Save]**.

4.3.2.3. Energy management tab (testo 480 only)

> Switch off instrument automatically: enter required time frame | **[Save]**.
> Switch off display light in battery operation: enter required time frame | **[Save]**.
> Set display brightness: move slider | **[Save]**.

4.3.2.4. Display language tab

The available languages for texts in the instrument are displayed.
> **Select language** | **[Save]**.

4.3.2.5. Emission level table tab (testo 835 only)

> **i** A separate emission level table is saved on the instrument for each user language. Changes to the table only relate to the relevant selected language.

When the tab is opened, the emission level table is automatically read out from the instrument.
> Change the designation: triple-click on the cell | make changes | **[Write to device]**
> Add to material: enter designation and emission level in the last line | **[Write to device]**
> Read out emission level table again from the instrument: **[Read from device]**.
> Save emission level table as an XML file to the PC: **[Save as]**.
> Load emission level table saved on the PC: **[Read from file]**.

4.3.2.6. Password security tab (testo 480 only)

When password security is enabled, all of the following functions can only be carried out on the instrument by entering the password:
• Instrument factory reset
• Probe reset
• Firmware update
• Change/deactivate password

• Probe name
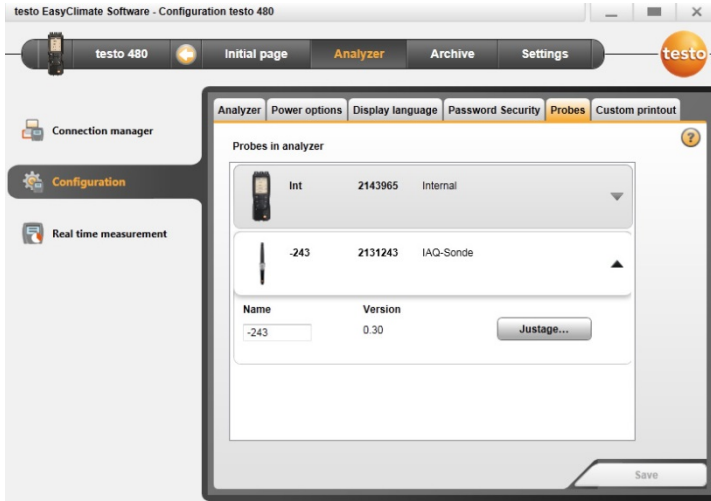• Humidity adjustment

> ℹ️ If you forget the password, it can only be reset by Testo Service.

> Enter password | Re-enter password | **[Save]**.

4.3.2.7.   Probe tab (testo 480 only)

The probe types connected to the instrument are displayed.

> ℹ️ The probe name of any connected probe can be changed and calibration data from the calibration protocol stored in the probe.

Select probe type **[▼]**.

> Press **[Adjustment]**
- Selection window appears.
> Select unit for the adjustment | **[Next]**
> Activate **[Use adjustment data]**, enter: **Certificate number** | **Date of issue** | **Valid to** | **Points** | **Unit** | **Target**- and **Actual value** | **[Close]** | **[Save]**.
- The adjustment data is stored in the instrument.

ℹ️ Once the calibration data has been entered, this is stored in the probe permanently. The probe takes deviations into account automatically during measurement, thereby generating a zero-error display.

4.3.2.8. Printout tab (testo 480 only)

On the **Printer texts** tab, the address lines, the footer and the logo can be set up for testo 480 instrument report printouts.

> Enter print texts in the text input fields | **[Save]**.
> Select required logo | **[Save]**.

4.3.3. Online measurement

ℹ️ Electrostatic charging may destroy communication between the instrument and the PC/laptop. You should therefore integrate all components into the equipotential bonding (earthing) before carrying out measurements, especially in the case of online measurements (instrument connected to PC/laptop) or when using the mains unit as a power supply. Observe the system safety information.

Using the **Online measurement** menu, a measurement can be carried out, during which the instrument is controlled by the PC. The measurement values are transferred directly to the PC and displayed.
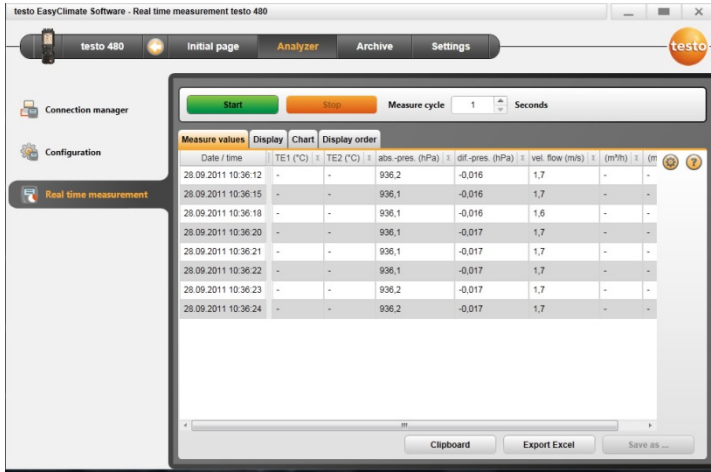
> Choose **Initial page**| **Online measurement**

or

> menu **Instrument**| **Online measurement**.

Carrying out the online measurement

> ℹ Only the parameters and measuring units activated on the
> **Display order** tab are displayed.

1. Set **Measure cycle** and emission level (testo 835 only).
2. Set **display sequence**.
3. Start online measurement: **[Start]**.
- The measurement values are displayed.
4. End online measurement: **[Stop]**.
- The online measurement is stopped

Saving measuring values from online measurement
1. Display **measuring values**.
2. Choose between **[Clipboard]**, **[Export Excel]** and **[Save as …]**.

> ℹ • **Clipboard**: the measuring values are stored in the
> clipboard, for inserting into any file.
>
> • **Export Excel**: the measuring values are exported in
> *.xls or *.xlsx format.
>
> • **Save as…**: the measuring values are stored in the
> software's archive. Saving is only possible with a
> standard measurement program.

4.3.3.1. Measurement values tab

> **Measurement values**: show table with all measurement channels and date/time of the single measurements.

Executable actions

> **[Save as ...]**: save measurement values.
> **[Export Excel]**: export readings to Microsoft Excel (Microsoft Excel 2000 or higher required!).
> **[Clipboard]**: export measurement values to the clipboard (tab stop-separated text file).

4.3.3.2. Display tab

- **Display**: display fields with all measurement channels. The current measurement values are displayed.

Executable actions

> Close/open display bar: press **[⊚]**.
>> During a measurement, the mean value, maximum or minimum can be displayed instead of the actual values.
>> Change size (zoom) of the display fields: move slider.

4.3.3.3. Chart tab

- **Chart**: Measurement chart with 16 selectable measurement channels and automatic scaling of the time axis.

Executable actions

> Close/open display bar: press **[⊚]**.
>> Set chart properties (displayed channels, line colour, scale, limits).
> **[Save bitmap]**: save chart as a file.

4.3.3.4. Display order tab

The available measurement channels are displayed in the **Available channels** area. Only the parameters and measuring units that are present in the current display order of the instrument are available.

The measurement channels displayed on the PC during online measurement are displayed in the **Selected channels** area.

Set display order

> Add/delete measurement channels: **[Add >]**, **[Add all >]**, **[< Delete]** or **[< Delete All]**.

> Set the order of the measurement channels: select measurement channel | **[Up]** or **[Down]**.

4.4. Archive menu

✓ An instrument is connected to the testo EasyClimate Software and is displayed with its status information (left) in the menu bar.

This menu is used to archive measurements within a folder structure. If an instrument is connected and if there are also measurements on the instrument, these measurements can be copied from the instrument to the archive, and the folder structure on the instrument can be changed.

4.4.1. Explorer
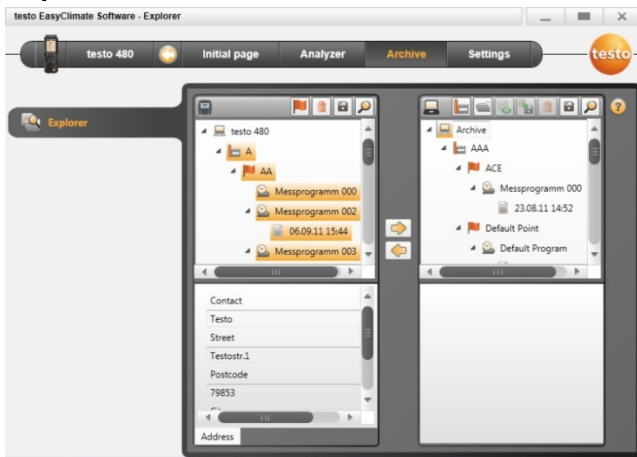
> Menu **Initial page** | **Manage archived measurements**.
  or

Menu **Archive** | **Explorer**.

- The instrument memory is displayed under 🖫 (left window), and the PC memory is displayed under 🖳 (right window).

> ℹ️ The functions described below can, in some cases, only be executed on the instrument memory or the PC memory, depending on the connected instrument.

4.4.1.1.   Adding a folder

> Add folder: press **[🖿]** symbol.
- New folder is created.

> ℹ️ Press the **[🖿]** symbol again to create another folder.
>
> If a folder text field is selected, the folder can be renamed. (Select element | right mouse button | **Rename**.
>
> The information fields can also be renamed or completed after the measurement.) This procedure applies to all element types.

4.4.1.2.   Adding a measurement location (testo 480 only)

1. Add measurement location: press **[🖳]** symbol.
- - New measuring location is created.

2. If the measuring location is selected, information on the measurement location can be entered on the **Address** tab.

4.4.1.3.   Adding a measuring point (testo 480 only)

1. Add measuring point: press **[🚩]** symbol.
- New measuring point is created.

2. If the measuring point is selected, information on the measuring point can be entered on the **Measuring point** and **Channel geometry** tabs.

4.4.1.4.   Adding a measuring program (testo 480 only)

- Choice of five measurement programs:
  ◦ Standard measurement program **[🖼]**
  ◦ HVAC measurement program **[🎲]**
  ◦ WBGT measurement program **[🌡]**
  ◦ PMV/PPD measurement program **[🌡]**
  ◦ NET measurement program **[🌡]**

1. Add measuring program: e.g. press **[⊙]** symbol.
- New measurement program is created.
2. If the measurement program is selected, information and settings for the relevant measurement program type can be entered on the bottom set of tabs.

4.4.1.5. Transferring folders/measurements

> **i** The folder structure must be maintained, e.g. measuring point can only be inserted under a measuring location.

1. Select folder or measurement: move the cursor to the required symbol and select it by clicking on it (highlighted orange).
2. Move the cursor to the target folder and select it by clicking on it (highlighted orange).
3. Copy selected folder or measurement from the instrument to the archive: press symbol **[⇨]**.
   or
   Copy selected folder or measurement (testo 480 only) from the archive to the instrument: press symbol **[⇦]**.
4. Save instrument data or archive: press **[💾]** symbol.

4.4.1.6. Excel export

> **i** User-defined Excel templates can also be created and saved in the same directory.

It is possible to export one or more measurement protocols directly into Excel. Excel templates have been created for the different protocol types.

1. Click on **[📊] Export selected measurement to Excel**.
- A window opens in which the usable templates are listed.
2. Open required template.
- Excel opens and the measuring values of the selected measurement are displayed in the selected template.
3. Save Excel file (**File** | **Save as**).

4.4.1.7. Error messages in the instrument memory

To work error-free in Explorer, each name must only exist once within one level of the folder structure. For example, two different measurement programs cannot have the same name.

However, a name may occur several times at different structural levels. Therefore a measuring point may have the same name as the corresponding measuring location, for example.

If there is a name conflict, the higher-level node(s) are marked in red.
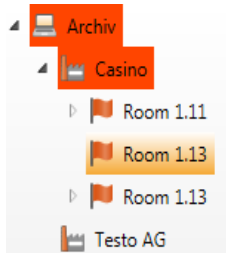

It is not possible to transfer the readings to the PC memory. The name can be changed by right-clicking on → **Rename**. As soon as all duplicate names have been removed, the nodes lose their red colour and the measurement data can be transferred to the PC memory and processed as normal.

4.4.1.8. Further functions

- Remove element: press **[🗑]** symbol.

- Import measurements (*.arg file): press **[📂]** symbol.

- Search for data: press **[🔍]** symbol.

- Display selected measurement: press **[🖼]** symbol.

- Export selected measurement (*.arg file): press **[📥]** symbol.

4.4.2. Displaying measurements
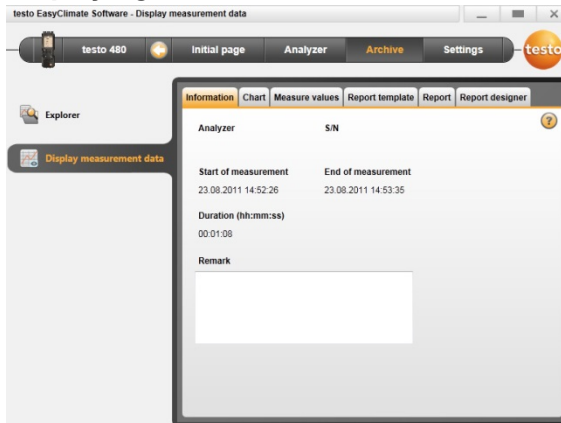
i Only measurements from the PC memory can be displayed. Data from the instrument must therefore first be copied to the PC.

1. Menu **Initial page** | **Manage archived measurements**.
   or
   Menu **Archive** | **Explorer**.
2. Under (right window), double-click on .
- The **Display measurement data** module is opened.

4.4.2.1. Information tab

The **Information** tab shows meta data for the measurement. A comment can be entered.

4.4.2.2. Chart tab

The **Chart** tab gives the measurement values in a graphical display.

Executable actions

> Close/open display bar: press **[ ]**.
   > Set chart properties (displayed channels, line colour, scale, limits).
> **[Save bitmap]**: save chart as a file.

4.4.2.3. Measurement values tab

The individual measurement values are shown in table form on the **Measurement values** tab.

Executable actions

> **[Export Excel]**: export measurement values to Microsoft Excel (Microsoft Excel 2000 or higher required!).
> **[Clipboard]**: export measurement values to the clipboard (tab stop-separated text file).
> Add a comment:
1. Click on the measurement value to which you want to add a comment.
- The **Measurement comment** window opens.
2. Enter comment.
3. Click on **[OK]**.
4. Click on **[Save comments]**.
- The comment is displayed as a green triangle (or a green circle on the chart). The comment appears when the mouse rolls over it.
> Change comment: You can click on the comment to edit it.
5 Min/max/mean values can also be displayed in the header. **[Σ]** | Select display.

4.4.2.4.   Report templates tab

> ℹ️   The existing report templates may not be edited or deleted.
> Create a copy of the required report template in order to
> edit it and to be able to use the executable actions.

There are various report templates available on the **Report
templates** tab. User-defined templates can be renamed, deleted or
edited, or a new one created.
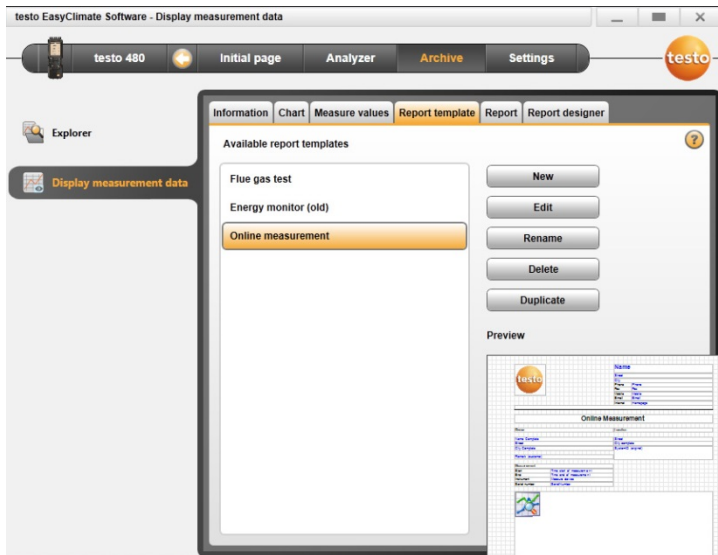
Executable actions

> **[New]**: create a new report template
> **[Change]**: edit activated report template in the report designer
> **[Rename]**: rename template
> **[Delete]**: delete created template
> **[Copy]**: copy report template

> ℹ️   From version 3.3 onwards, changes to report templates are
> indicated. Additional forms appear, which indicate the
> addition of the version number in the designation.

4.4.2.5.   Report tab

The **Report** tab shows the report for the measurement in the
selected report template. The report can be saved and printed in
PDF format.

4.4.2.6.   Report designer tab

The **Report** tab shows the report for the measurement in the selected report template. The report can be saved in PDF format and printed.
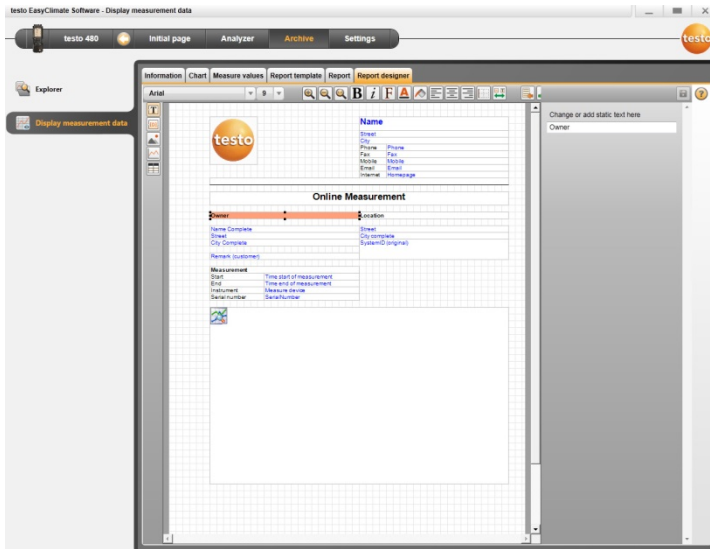
The displayed properties apply to the report template, which is identified on the **Report template** tab.

- **T** **Text field**: text is inserted in the report field as it is entered.

- **[D]** **Data field**: the value stored in the database (measurement value, customer or system data) of the selected data field is inserted into the report field.
  Choose field from database: **[...]**.

- **Graphic**: the selected graphic is inserted in the report field.
  Select graphic: **[File...]** | select file | **[Open]**.

- **PMV/PPD**: The PMV/PPD measurement chart is inserted.

- **Chart** (measurement data): the measurement values stored in the database for the measuring protocol are inserted into the report field as a graphic.
  Enter the parameters.

- **Table**: the measurement values stored in the database for the measuring protocol are inserted into the report field in table form.

- When the table is selected, only min/max/mean values can be selected also.

> **i** This function is only available if Text field or Data field is selected as the field type.

- Arial | 10 | **Default font**: the set default font is used for all text and data fields.
- **T** **Special font**: a font other than the default font is used. Select font: **[Font...]** | select values | **[OK]**.
- **Alignment**: select the alignment in the text field under Alignment.
- **A** **Colour**: choose font colour.
- **Background colour**: select background colour.
- **Border:** select border properties for the report field.
- Enter or set page properties.
- **Preview:** switch display from data field to content.
- : scroll forward/back in the report template.