testo easyheat
Configuration and Analysis software

Instruction manual en

General Information

This documentation includes important information about the features and application of the product. Please read this documentation through carefully and familiarise yourself with the operation of the product before putting it to use. Keep this document to hand so that you can refer to it when necessary.

This documentation describes the software with the program language English - GB.

! The range of functions of the software depends on the country version of the measuring instrument connected and on the number and kind of instrument types for which the software has been enabled via licence key. The descriptions in this document apply to the complete enabling of all instrument types.

Symbols

Symbol	Meaning
!	Identifies particularly important information.
Text	Text appears on the instrument display or PC monitor
	Position cursor over the whole element and click with the left mouse button. *
	Position cursor over the whole element and click with the right mouse button. *

* Data refers to standard mouse configuration (left button: selects, right button: context menu)

Content

A. Intended Purpose

The testo easyheat configuration and analysis software adds many useful functions to the testo 312-4, testo 314, testo 320, testo 324, testo 330 und testo 380 measuring instruments:

- Instrument configuration via software.
- Manages customer, system and measurement data.
- Data import from and data export to the measuring instrument.
- Sets up, saves and prints measurement protocols from imported data.

B. Using software

B.1 System requirements

Operating system

The software will run on the following operating systems:

- Windows® Vista
- Windows® 7
- Windows® 8
- Others: on request

Computer

The computer must meet the requirements of the corresponding operating system. The following requirements must also be met:

- Interface USB 1.1 or higher
- Internet Explorer 5.0 SP1 or higher
- Hard disk (min.): 150 MB free memory
- Microsoft® .Net 4 Framework: 2GB

B.2 Installing software

Administrator rights are required in Windows® Vista and Windows® 7, Windows® 8 to install the program.

Once installed, input of a licence key is required. Without this input, the software will only run as a demo version with a limited range of functions (time limit of 30 days). When the software is first started, a window automatically appears for you to enter the licence key.

1 Insert CD.

If the installation program does not start automatically:

▶ In the CD directory (access via **My Computer** or **Windows Explorer**), run the TestoSetup.exe file (double click).

2 Follow the installation program instructions.

- The **testo easyHeat software** will be installed

B.3 Starting the software

▶ Start (✎) → **Programs → Testo → testo easyheat configuration and analysis software** (✎).

- The program is opened. The program language corresponds to the operating system language.
- When the software is first started, a window appears for you to enter the licence key.

! Enter licence key (found on the CD packaging)) → **OK** (✎).
The range of functions of the software depends on the country version of the analyser connected. and on the number and kind of instrument types for which the software has been enabled via licence key.

B.4 Setting up the connection

testo 314

Connection via RS232 interface

To connect testo 314 to a PC the “connection cable PC / instrument 0409 0178” is required.

1 Connect cable to a serial connection socket in the PC.
2 Connect cable to RS 232 socket in measuring instrument.
3 Switch on instrument (⏻).

Connection via USB serial adapter

The „PC/instrument connecting cable 0409 0178“ and a USB serial adapter are required for the USB serial connection of the testo 314 to a PC.

1 Connect the USB serial adapter to the USB socket of the PC.
2 Connect the connecting cable to the RS232 socket of the instrument.
3 Connect the USB serial adapter to the connecting cable.
4 Switch on measuring instrument (⏻).

testo 330 and testo 324

To connect testo 330 or testo 324 to a PC the “connection cable PC /instrument 0449 0047” is required.

1 Install the USB driver. To do this, select Install Testo USB Driver in the directory USB Driver on the CD.
2 Connect connection cable to a USB socket in the PC.

3 Connect connection cable to a USB socket in the analyser.

4 Switch on analyser ( ).

Altenatively, the testo 330 and/or testo 324 can also be configured via an IrDA interface or Bluetooth, see Settings - Configuration, Instruments, p.65 .

! The analyser switches to the **Slave Mode** during data transfer; the analyser operating buttons are disabled in this mode. Once data is no longer being transferred the **Slave Mode** is stopped and the analyser can be controlled after 30 s via the control buttons, as normal.

testo 312-4

The “Connection cable 0409 0178 PC/instrument is required for the connection of the testo 312-4 to a PC.

1 Connect connection cable to a serial connection socket of a PC.

2 Connect connection cable to the RS 232 socket of the instrument.

3 Switch instrument on ( ).

Connection via USB serial adapter

The „PC/instrument connecting cable 0409 0178“ and a standard USB serial adapter are required for the USB serial connection of the testo 312-4 to a PC.

1 Connect the USB serial adapter to the USB socket of the PC.

2 Connect the connecting cable to the RS232 socket of the instrument.

3 Connect the USB serial adapter to the connecting cable.

4 Switch on measuring instrument ( ).

testo 320

The micro USB mains cable is required to connect the testo 320 to a PC.

1 Install the testo USB driver. Select the program Install testo USB Driver in the directory USB Driver on the CD.

2 Plug the connecting cable into a USB port on the PC.

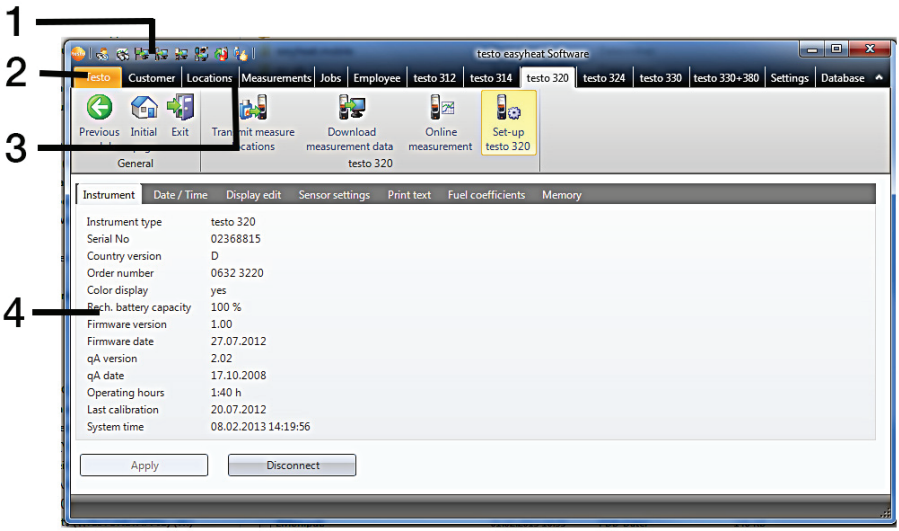
3 Plug the connecting cable into the USB port on the measuring instrument.

4 Switch on measuring instrument ( ).

Alternatively, the testo 320 can be set up using an IrDA interface or Bluetooth, see Settings - Configuration - Analyzers, page 65.

! The measuring instrument switches to Slave Mode during data transfer; the instrument’s control buttons are disabled in this mode. Once data is no longer being transferred, Slave Mode is terminated and after approx. 30s the measuring instrument can be controlled via the control buttons as normal.

C. Operation



① Quick access toolbar: Fast access to established modules
② Testo tab: Possibility of a licence extension
③ Ribbon bar: Displays existing modules, sorted by module groups.

- ▶ Open module: Select desired module, e. g. **Configuration** ( ).

The modules can also be opened via the Quick Access Toolbar. The menus have the same name as the corresponding module groups.

! Some of the modules can only be opened if data was stored or specific data was selected in advance in another module.

! If a module is not activated, the homepage containing the modules required most frequently (favourites) appear enabling direct access.

Some modules consist of several folders (e.g. **Configure testo 330** module):

- ▶ To open the folder: Select required folder in the module window, e.g. **Instrument** ( ).

④ Work area:
The work area ia the area in which all inputs are carried out.

! With [F11] you can switch between the standard display and the full screen display of the working area.

D. Application example

The most important steps required for a typical application of the software is explained in this Chapter using an example.

A detailed description of all software functions can be found at Functions, p. 14.

Configuring software

1 **Settings** (✎) → **Configuration** (✎).
2 **Own data** (✎) → Enter/change address data.
3 **Customer data** (✎) → Activate functions required.
4 **Backup** (✎) → Undertake settings.
5 Taking on changes: **Apply** (✎).

Configuring the analyser (testo 314, testo 320, testo 324, testo 330)

1 **testo 314** (✎) → **Configure testo 314** (✎),
testo 320 (✎) → **Configure testo 320** (✎) ,
testo 330 (✎) → **Configure testo 330** (✎).
testo 330 + 380 (✎) → **Configure testo 330** (✎) ,
2 **Print text** (✎) → **Own address data** (✎) → **Apply** (✎).

Configuring the analyser (testo 312-4)

1 **testo 312-4** (✎) → **Configure testo 312-4** (✎)
2 **Print text** (✎) → **Print line** (✎) → **Save** (✎).

Configuring the analyser (testo 324)

1 testo 324 (✎) → Set-up testo 324 (✎)
2 Print text (✎) → Fill in lines (✎) → Ready (✎).

Setting up new customers

1 **Customer** (✎) → **Insert new customer** (✎).
2 Enter new customers in the corresponding boxes → **Save** (✎).

Setting up a new location

1 **Locations** (✎) → **Insert new location** (✎).
2 Enter new location in the corresponding boxes in the folders **Location**, **Installation**, **Boiler**, **Furnace** → **Save** (✎).

Transmitting location(s) to the instrument

1 Select a measuring instrument (e.g. testo 324) tab → Upload measure sites

2 Select measuring location(s) in the folder Measure sites on PC (☑) → Upload ()

Carrying out measurements

▶ To activate location, carry out measurement and save reading: see Instruction manual on testo 314, testo 312-4, testo 320, testo 324, testo 330 or testo 380.

Reading in measurement data protocol(s) from the instrument

1 Select a measuring instrument (e.g. testo 324) tab Download measurement data

2 Select measurement protocol(s) in the folder Measurements in analyzer (☑) → Download ().

Displaying and printing a measurement protocol

1 **Measurements** () → **Search measurement** ().

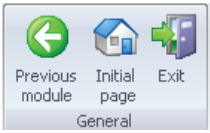
2 Select measurement protocol () → **View** ().

3 Print measurement protocol: Print report ().

4. Select the report template () → OK ().

E. Functions

E.1 General



E.1.1 Previous module

▶ Scroll back to previous module: **General** (✎) → **Previous module** (✎).

E.1.2 Initial page

▶ Open initial page: **General** (✎) → **Initial page** (✎).

The initial page includes the modules used most frequently for direct access (favourites).

E.1.3 Exit

▶ End program: **General** (✎) → **Exit** (✎).

- If you have not carried out data backup on the day, the **Database backup** window will open offering you the following options:
  - **Complete backup:** A complete backup is made of the database.
  - **Save changes:** Any changes made since the last backup will be saved.
  - **Currently no backup:** Program is ended without data backup being carried out.

  ▶ Carrying out data backup: Select required option (✎) → **OK** (✎) → **OK** (✎).

E.2 Customer

The **Search customer**, **Show customer details**, **Change customer data**, **Insert new customer** and **Import customer data** modules can be opened with function **Customers**.

E.2.1 Search customer

Using the **Search customer** module, you can search for customers using search criteria or an alphabetic index.

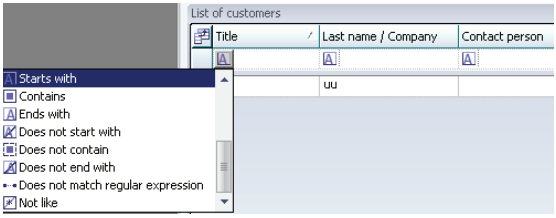
Opening the module

▶ **Customer** (✎) → **Search customer** (✎).

List of customers

▶ (✎)

▶ Select desired search criterion (condition) for a field (✎).



- All customers whose entry in e.g. the field **Name/Company** begin with the corresponding condition, are displayed.
- If you enter several search criteria (conditions) for a search, only those customers who match these criteria will be found

Activating customers

! If a customer is not activated, the **Show customer** and **Change customer data** modules cannot be opened.

▶ Select customers ( ).

- The selected customer is highlighted in color.

Displaying customer data

▶ Select customers ( ) → **Show customer** ( ).

- The **Show customer**module is opened, see Show customer data, on this page.

Changing customer data

▶ Select customers ( ) → **Change costumer data** ( ).

- The **Change customer data** module is opened, see Change customer data, p. 18.

Deleting customers

▶ Select costumers ( ) → **Delete** ( ) → **Yes** ( ).

- The customer is deleted.

! If a customer is deleted, all measurement sites and measurements of this customer are removed from the memory.

Setting up new customers

▶ **New** ( ).

- The **Insert new customer** module is opened, see Insert new customer, p. 17.

E.2.2 Show customer

The address data and the customer's saved systems can be shown with the **Show customer** module.

Opening a module

! The **Show customer** module can only be opened if a customer has been activated in the **Search customer** module, see Search customer, p. 14.

▶ **Customer** ( ) → **Search customer** ( ).

The **Show customer** module is divided into two areas. The **Address** folder is located in the upper area while the **List of locations** folder is located in the lower area.

E.2.2.1 Address

Changing address

▶ **Change costumer** (✎).

- The **Change customer data** module is opened, see Change customer data, p. 17.

Deleting customers

▶ **Delete costumer** (✎) → **Yes** (✎).

- The customer is deleted.

Searching for customers

▶ **Search costumer** (✎).

- The **Search customer** module is opened, see Search customer, p. 14.

E.2.2.2 List of locations

Select location

! If a location is not activated the **Show measure location data** and **Change measure location data** modules cannot be opened.

▶ Select a location (✎).

- The selected location is highlighted in color.

Displaying measurement location data

▶ Select location (✎) → **Show measure location data** (✎).

- The **Show measure location data** module is opened, see Show measure site data, p. 19.

Changing measurement location

▶ Select location (✎) → **Change measure location data** (✎).

- The **Change measuresite data** module is opened, see Change measure location data, p. 20.

Deleting a location

▶ Select location (✎) → **Delete** (✎) → **Yes** (✎).

- The location is deleted.

! If a measurement site is deleted, all measurements are deleted which were allocated to this measurement site.

Setting up a new site

▶ **New** (✎).

- The **Insert new location** module is opened, see Insert new location, p. 21.

E.2.2.3 Jobs

Selecting jobs

! If no job is activated, the **Show measure site data** module cannot be opened.

▶ Select job ( ).

- The selected job is highlighted in colour.

Displaying a job

▶ Select job ( ) → **Show** ( ).

- The **Show job details** module is opened, see Show job details, page 30

Deleting a job

▶ Select job ( ) → **Delete** ( ) → **Yes** ( ).

- The job is deleted.

E.2.3 Change customer data

Existing customer data can be changed with the **Change customer data** module.

Opening a module

! The **Change customer data** module can only be opened if a customer was activated in the **Search customer** module, see Search customer, p. 14.

▶ **Customer** ( ) → **Change customer data** ( ).

Changing data

▶ Enter changes to the customer data in the corresponding boxes → **Save** ( ).

- The **Show customer data** module is open, see Show customer data, on this page.

E.2.4 Insert new customer

A new customer can be set up with the **Insert new customer** module.

Opening the module

▶ **Customer** ( ) → **Insert new customer** ( ).

▶ Enter new customer data in the corresponding boxes → **Save** ( ).

- The **Show customer** module is opened, see Show customer, on this page.

E.2.5 Import customer data

Using the **Import customer data** module, existing customer data can be imported from other applications.

Opening the module

▶ **Customer** (✎) → **Import customer data** (✎).

Importing data

Before importing customer data, it has to be changed to a supported import format:

· Text file with separating character (comma, semicolon, Tabulator)
· Microsoft® Access® database
· Microsoft® Excel® worksheet

Standard programs (such as Microsoft® Outlook®) usually support one of the named formats.

1 Select import format (✎) - **Locate** (✎).
2 Select file to be imported.

When importing an Access database you may be required:

▶ To enter **User ID** and **Password**.

! Microsoft® Excel must be installed in order to import customer data via Excel files. At least Excel 97 for XLS files and at least Excel 2007 for XLSX files.

3 **Next >** (✎).

When importing an Excel worksheet you may be required:

▶ To select a worksheet (✎) → **Next >**.

When importing an Access database you may be required:

▶ To select a table (✎) → **Next >**.

Allocating import data

Once the data is read in, the data boxes have to be allocated. Only allocated data boxes will take effect.

When importing from a text file, it is possible that the first line does not include any address data. If required:

▶ **First line contains column name** (✎).

1 Open list box (✎) - Select target data box (✎).
- The import data box is allocated to the target data box.

2 Repeat step 1 for all required data boxes.

! If the **Customer ID** data box is empty for one customer, a customer number is assigned automatically.
If the **Customer ID** data box is available for a customer but the customer number is already assigned in the configuration and analysis software the available data is replaced by import data.
If the **Name / Company** data box for a customer is empty, the customer data is not imported.

3 **Apply** (✎) → **OK** (✎).

- The **Search customer** module is opened, see Search customer, p. 14.

E.3 Measure locations

The **Show measure location data**, **Change measure location data**, **Insert new location** and **Print barcodes** modules can be opened via the **Locations** function.

E.3.1 Show measure location data

System data and the measurement data saved in a system can be displayed with the **Show measure location data** module.

Opening a module

! With activated module group~~/menu~~ **Customer**: The **Show measure location data** module can only be opened if a location was activated in the, **Show customer** module, see Show customer, p. 16.

▶ **Mesure locations** (✎) → **Show measure location data** (✎).

The **Show measure location data** module is divided into two areas. The **Location**, **Owner**, **Installation**, **Boiler** and **Furnace** folders are located in the upper area, in the lower area, the **Measurement values** and **Tasks** folders.

E.3.1.1 Location, Owner, Installation, Boiler, Furnace

Information on the measurement location is displayed.

E.3.1.2 Measurements

Activate measurement protocol

! If a measurement protocol is not activated, the **Display measurement data** module cannot be opened.

▶ Activate the measurement protocol (✎).

- The selected measurement protocol is highlighted with color.

Displaying a measurement protocol

▶ Activating the measurement protocol (✎) → **Display** (✎).

- The **Display measurement data** module is opened, see Display measurement data, p. 23.

Deleting a measurement protocol

▶ Activate the measurement protocol (✎) → **Delete** (✎) → **Yes** (✎).

- The measurement protocol is deleted.

E.3.1.3 Jobs

Displaying a job

▶ Select job (✎) → Show job details (✎).

- The Show job details module is opened, see Show job details, page 30.

New job

▶ New job (✎).

- The New job module is opened, see New job, p. 31.

Deleting a job

▶ Select job (✎) → Delete job (✎) → Yes (✎).

- The job is deleted.

E.3.2 Change measure location data

Existing location data can be changed using the **Change measure location data** module.

Opening the module

! With activated module group **Customer**: The **Show measure location data** module can only be opened if a location was activated in the, **Show customer data** module, see Show customer, p. 16.

▶ **Locations** (✎) → **Change measure location data** (✎).

Changing data

▶ Enter changes to the location in the appropriate boxes → **Save** (✎).

- The **Show measure location data** module is opened, see Show measure location data, p. 19.

E.3.3 Insert new location

A new location can be set up with the **Insert new location** module.

Opening the module

▶ **Locations** (✎) → **Insert new location** (✎).

▶ Enter the data from the new location in the corresponding boxes in the **Location**, **Installation**, **Boiler** and **Furnace** folders → **Save** (✎).

- The **Show measure location data** module is opened, see Show measure location data, p. 19 .

E.3.4 Print barcodes

Barcode labels can be printed via the **Print barcodes** module. The system numbers stored in the barcode can be read in to the analyser using a barcode reader. In this way, the corresponding location in the instrument is activated.

Opening a module

▶ **Locations** (✎) → **Print barcodes** (✎).

Printing barcode labels

1 Select locations for which a barcode label is to be printed (☑✎).

Options:

▶ Select all locations: **Select all** (✎).

▶ No location selected: **Select none** (✎).

2 Enter **Company**.

The company name is printed above the barcode.

3 Define **Paper size** and number of **Columns** and **Lines** (or).

For Testo labels (0554 0411): paper size DIN A4, 2 columns, 6 lines.

4 Set **Copies per label** ( ).

5 Select label at which printout is to begin (on the label).

6 Start printout: **Print** ( ).

E.4 Measurements

The **Search measurement** and **Display measurement data** modules can be opened via the **Measurements** function.

E.4.1 Search measurement

You can search for measurement protocols stored in your PC using the **Search measurement** module.

Opening the module

▶ **Measurements** ( ) → **Search measurement** ( ).

- All of the measurement protocols stored in the PC are displayed. To display the measurement protocols from only one location, see Show measure location data, p. 19.

Select a measurement protocol

! If a measurement protocol is not activated, the **Display measurement data** module is not opened.

▶ **Select** measurement protocol ( ).

- The measurement protocol is highlighted by a color.

Display a measurement protocol

▶ **Select** measurement protocol ( ) → **Display** ( ).

- The **Display measurement data** module is opened, see display measurement data, p. 23.

Delete a measurement protocol

▶ **Select** a measurement protocol ( ) → **Delete** ( ) → **Yes** ( ).

- The measurement protocol is deleted.

Changing measurement site

Measurement protocols can be allocated to other measurement sites.

1 **Select** measurement protocol ( ) → **Change location** ( ).

2 Activate the measurement site to which the measurement protocol is to be allocated ( ) → **OK** ( ).

- The measurement protocol is allocated to the selected measurement site.

Multiple measurement protocols can be merged into one measurement protocol.

1 Activate measurement protocols ( ); for multiple selections, hold down the [Ctrl] key.

2 **Connect** ( ).

3 Select location where the measurement protocol is to be saved → **OK** ( ).

- The measurement protocols are merged into one protocol.

Exporting/importing measurement protocols

▶ **Export** ( ) or **Import** ( ) → **Enter file name** (/) → **Save** ( ).

- The measurement protocol is **exported/imported**.

! The following registers are available in the Excel file as a source of information:
testo register: Measurement results
Information register: Start and end time for a measurement, among other things
Folder register: Name and customer number
Location register: Address, location designation, among other things

E.4.2 Display measurement data

Measurement protocols can be displayed and processed via the **Display measurement data** module.

! The **Display measurement data** module can only be opened if a measurement protocol was selected in the **Search measurement** or **Show measure location data** modules, see Search measurement, p. 22 or Show measure location data, p. 19.

Open a module

▶ **Measurements** (✎) → **Display measurement data** (✎).

E.4.2.1 Information

Information on the measurement protocol is shown in the **Information** tab.

▶ Enter text in the **Remark** box.

Print measurement protocol

▶ Print measurement protocol with information data and readings: **Print report** (✎).
  ▶ Selection of form template → **OK** (✎)
    ▶ Set printer → **OK** (✎)
      - Print report

Display print preview

▶ Display measurement protocol as a print preview: **Preview report** (✎).

Save information in PDF format

▶ Save a measurement protocol in PDF format: PDF report (✎).

PDF report (✎) → Select report template (✎) → OK (✎) → Enter file name (▼/✎) → Select file type (▼/✎) → Save

E.4.2.2 Graphics

The readings are shown in graphics form in the **Graphics** tab (maximum 16 channels).

Print measurement protocol

▶ Print out the measurement protocol with information data and readings: **Print report** (✎).
  ▶ Selection of form template → **OK** (✎)
    ▶ Set printer → **OK** (✎)
      - Print report

Display print preview

▶ Display measurement protocol as a print preview: **Preview report** ( ).

▶ Selection of form template → **OK** ( )

- A report is created.

Save a measurement protocol in PDF format

▶ Save a measurement protocol in PDF format: PDF report ( ).

PDF report ( ) → Enter file name (/) → Select file type (/) → Save

Print measurement protocol

1 **Print bitmap** ( ).

2 Set printer → **OK** ( )

Save graphics as a file

1 **Save bitmap** ( ).

2 **Enter file name** (/) → **Enter file type** (/) → **Save** ( ).

Changing features in graphics

1 **Settings** ( ).

2 **Channel**: Select measurement channels ( ), **Legend**: Enter channel name.

3 Save settings: **OK** ( ).

E.4.2.3 Measure values

The readings in a table or list are shown in the **Measure values** tab.

! Diluted measuring values from the online measurement are displayed in italics

Print measurement protocol

▶ Print measurement protocol with information data and readings: **Print report** ( ).

▶ Selection of form template → **OK** ( )

▶ Set printer → **OK** ( )

- Print report

Display print preview

1 Display measurement protocol as a print preview: **Preview report** ( ).

2 Selection of form template → **OK** ( )

- A report is created.

Save a measurement protocol in PDF format

▶ Save a measurement protocol in PDF format: PDF report ( ).

Exporting readings as an Excel file

▶ **Enter file name** (▼/✎) → **Enter file type** (▼/✎) → **Save**

- - The measurement protocol is **exported**

! The following registers are available in the Excel file as a source of information:
testo register: Measurement results
Information register: Start and end time for a measurement, among other things
Folder register: Name and customer number
Location register: Address, location designation, among other things

▶ **Clipboard** (✎).

- The readings are exported to the PC clipboard as a tab stop-separated text file.

Evaluation of the measurement results

The mean, maximum and minimum readings can be displayed.

▶ **Min/Max/Mean** (✎) → Activate the desired functions (☑✎) → **OK** (✎).

E.4.2.4 Data entry

In the Data entry tab, data related to a measurement can be entered into a new data entry form based on a template or assigned an already-completed data entry form. The values entered can then be printed out together with measuring values, location and customer data via a report template.

! When a **sample report is selected for data entry,** a specimen of the data entry form is displayed. Please note the information given there relating to data entry.

! In the Report design module, the report templates for entering unlogged data can be changed to suit the user's specific requirements or new ones can be created, see Settings - Report design.

Creating a new data entry form

1 Activate measurement protocol ( ) → Show ( ).

- The Display measurement data module is opened, see Display measurement data, p. 25.

2 Select Data entry tab.

3 Create a new data entry form: New ( ).

4 Select Create new form template from the list ( ).

5 Select Date ( ) and apply Name.

! The system number is suggested as the name. This can be changed if required.

6 Save settings: OK ( ).

7 Input data into the template: click on check boxes ( ), click on text fields ( ) and fill in.

8 Save entries: Save ( ).

▶ Display report template with the input data: Preview report.

▶ Save report template with the input data as a PDF file: PDF report ( ) Enter file name (/) → Select file type (/) → Save.

▶ Print out report template with the input data: Print report ( ) → Set up printer → OK ( ).

▶ Delete completed data entry form: Delete ( ) → Yes ( ).

▶ Save completed data entry form as a PDF file: Save as PDF ( ) → Enter file name (/) → Save.

▶ Print out completed data entry form: Print ( ) → Set up printer OK ( ).

Assigning existing data entry form to a measurement

! An existing data entry form can be assigned to several measurements.

1 Activate measurement protocol ( ) → Show ( ).

- The Display measurement data module is opened, see Display measurement data, p. 25.

2 Select Data entry tab.

3 Assign ( ).

4 Select data entry form → OK ( ).

▶ Edit the data in the data entry form if required.

5 Save entries: Save ( ).

▶ Display report template with the assigned data: Preview report.

- ▶ Save report template as a PDF file: PDF report (✎) → Enter file name (▼/✎) → Select file type (▼/✎) → Save.
- ▶ Print out report template with the assigned data: Print report (✎) → Set up printer → OK (✎).
- ▶ Delete assigned data entry form: Delete (✎) → Yes (✎).
- ▶ Save assigned data entry form as a PDF file: Save as PDF (✎) → Enter file name (▼/✎) → Save.
- ▶ Print out assigned data entry form: Print (✎) → Set up printer → OK (✎).

E.5 Jobs

Via the menu **Jobs**, you can open **Search job, Show job details** and **New job**. The **Jobs** module group/menu can be activated/deactivated (**Settings** - **Configuration** - **Programme**).

E.5.1 Search job

With the module **Search job**, jobs stored in the PC can be search .

Open module

- ▶ **Jobs** (✎) → **Search job** (✎) → **Search** (✎).
- All jobs stored in the PC are displayed.

! In the menu **Search mask** the job search can be limited by entering a search criterion.

Select jobs

- ▶ **Select** jobs (✎).
- The selected job ishighlighted in color.

Display jobs

- ▶ **Select** job (✎) →**View** (✎).
- The module **Show job details** is opened, see Show job details, on this page

Delete job

▶ **Select** jobs ( ) → **Delete** ( ) → **Yes** ( ).

- The job is deleted.

E.5.2 Show job details

With the module **Show job details,** jobs can be displayed and processed further.

The module **Show job details** can only be opened if a job has been marked in the module **Search job** see Search job, on this side.

Open module

▶ **Jobs** ( ) → **Show job details** ( ).

Inputting data

1 Select the date for the job ( ).

2 Enter job data in the corresponding fields → **Ready** ( ).

E.5.3 New job

With the **New job** module, a new employee job can be entered that is automatically assigned to the respective employee and appears in his or her job list.

Open the module

The **New job** module can only be opened if an employee was activated in the **All employees** module, see All employees, p. 27.

▶ **Jobs** ( ) → **New job** ( ).

Enter data

1 Select the date which should apply to the job ( ).

2 Enter job data in the corresponding fields → **Ready** ( ).

E.6 Employee

Using the **Employee** menu, the **All employees**, **Change employee**, **New employee**, and **Job list** modules can be opened.

E.6.1 All employees

All entered employee data is displayed in the **All Employees** module and the employee whose job list should be created/displayed can be activated.

Open the module

▶ **Employee** (✎) → **All Employees** (✎).

Select employee

! If no employee is**selected**, the **Change employee** and **Job list** modules cannot be opened.

▶ **Select** employee (✎).

- The selected employee is highlighted.

Display job list

▶ **Select** employee (✎) → **Job list** (✎).

- The **Job list** module is opened, see Job list, p. 29.

Change employee data

▶ **Select** employee (✎) → **Change** (✎).

- The **Change customer data** module is opened, see Change customer data, p. 17.

Delete employee

▶ **Select** employee (✎) → **Delete** (✎) → **Yes** (✎).

- The employee is deleted.

Create new employee

▶ **New** (✎).

- The **New employee** module is opened, see New employee, on this page

E.6.2 Change employee

The **Change employee** module enables existing employee data to be edited.

Open the module

! The **Change employee** module can only be opened if an employee was activated in the **All employees** module, see All employees, p. 27.

▶ **Employee** (☜) → **Change employee** (☜).

Edit data

! The employee number is assigned when the employee is first created. It cannot be changed afterwards..

▶ Enter changes to the employee data in the corresponding fields → **Ready** (☜).

- The **All employees** module is opened, see All employees, p. 27.

E.6.3 New employee

With the **New employee** module, a new employee can be created.

Open the module

▶ **Employee** (☜) → **New employee** (☜).

Enter data

! Make sure that the employee number is correctly assigned as it cannot be changed later.

▶ Enter the data of the new employee in the corresponding fields → **Ready** (☜).

- The **All employees** module is opened, see All employees, p. 27.

E.6.4 Job list

In the **Job list** module, all entered jobs of the activated employee are displayed.

Open the module

! The **Job list** module can only be opened if an employee was activated in the **All employees** module, see All employees, p. 27.

▶ **Employee** (☜) → **Job list** (☜).

Filter jobs

▶ Enter date range or select predefined time period ( ).

- The applicable jobs are displayed.

Displaying job data

1 Select job from the list

2 Display job data: Show

3 Job data can be edited in the corresponding fields if required Change ( ).

Exporting a job list to an Excel file

▶ Export complete job list to Microsoft Excel: Export Enter file name (/) → Select file type (/) → Save.

E.7 testo 312-4

! The menu / module group testo 312 is only available if the testo 312 measuring instrument support is activated, see Settings - Configuration - Analyzers, p. 56.

E.7.1 Download measurement data

With the module **Download measurement data,** measurement reports can be saved from the measuring instrument testo 312-4 to a PC.

Open module

▶ **testo 312-4** ( ) → **Download measurement data** ( ).

Save measurement report(s)

Options:

▶ Select all measurement reports: **Select all** ( ).

▶ Deactivate selection of measurement reports: **Select none** ( ).

▶ Select measurement report(s) ( ) → **Read** ( ).

- The measurement report is saved in the PC under the same measurement site as in

the instrument. If the measurement site of the selected report does not yet exist in the PC, you will be asked whether this should be created.

-or-

▶ Select measurement report(s) (☑) → **Download as ...** (✎) → Select destination measurement site → **OK**.

Delete measurement report

▶ Measurement report (✎) → **Delete** (✎) → **Yes** (✎).

- The measurement is deleted

Display measurement report

! If the selected measurement ~~site~~ has not yet been saved in the PC, this function is not available.

▶ Measurement reports (☑) → **View** (✎).

- The module **Display measurement data** is opened, see Display measurement data, p. 23

E.7.2 Online measurement

With the module **Online measurement**, a pressure measurement can be carried out, in which the measuring instrument is controlled via a PC. The measurement values are transferred directly to the PC and stored there.

Open module

▶ **testo 312-4** (✎) → **Online measurement** (✎).

E.7.2.1 Measure values, Display, Chart

Carry out online measurement

! Only those measurement parameters and units are displayed, which are activated in the **Display order** tab (in the same module).

1 Set measurement cycle: (✎).

2 Set measurement sequence: (✎).

3 Start measurement: **Start** (✎).

- The online measurement starts
- The measurement values are displayed:
  - **Measure values**:tab: Table with all measurement channels and date/time of the individual measurements.
  - **Display** tab: Display fields with all measurement channels.
    - ▶ Manually save readings (only available if the measuring cycle is set to 0 s): **Save** (✎).

- ▶ During measurement, mean value, maximum and minimum can be displayed instead of the current values: **Actual values** ().
- ▶ Change the size of the display fields: Move controller ().
- ▶ Show readings in a separate window which is always in the foreground: **show min window** ().

Chart:tab: Measurement diagram with 16 selectable measurement channels and automatic scaling of the time axis.

- ▶ Set diagram properties (displayed channels, line colour, scaling: **Settings** ().
- ▶ Save diagram as a bitmap: **Save bitmap** ().

4 End measurement **Stop** ().

- The online measurement is ended.

Options (Only in the file):

- ▶ Save measurement values online under the measurement site: **Save as...** ().
- ▶ Export measurement values to Microsoft Excel (Microsoft Excel 2000 or higher required!): **Export Excel** (). .
- ▶ Export measurement data to the clipboard (tabstop tabstop separated text file): **Clipboard** ().

E.7.2.2 Display order

The available measurement channels are displayed in the area **All channels**. Only those measurement parameters and units are available, which are present in the current display order of the measuring instrument.

The measurement channels presented on the PC in the online measurement are displayed in the area **Shown channels**.

Set display order

- ▶ Add/delete measurement channel : **Add ->**, **Add all ->**, **<-Delete** or **<- Delete All** ().
- ▶ Set order of measurement channels: Select measurement channel () → **Up** or **Down** ().

E.7.3 Configure testo 312-4

The measuring instrument testo 312-4 can be configured with the module Configure **testo 312-4**.

Open modul

- **testo 312-4** ( ) → Configure **testo 312-4** ( ).

E.7.3.1 Serial connection to testo 312-4

! This menu appears when no connection to the instrument can be set up.

The interface for the connection set-up with the measuring instrument testo 312-4 can be selected.

- Select interface used ( ).

  Option:

  - Test connection to the instrument: Test connection ( ).

E.7.3.2 Instrument

The **Instrument** tab displays important information on the instrument connected

E.7.3.3 Date / Time

In the **Date / Time** tab, the date and time of the instrument can be sychronised with the PC.

Synchronise date/time manually

- **Synchronise now** ( ).

E.7.3.4 Print text

In the **Print text** tab, the print line for the report printouts of the measuring instrument testo 312-4 can be set..

Set print line

- Enter print text in the text input space.

E.7.3.5 Logger programme

In the **Logger programme** tab, the measurement cycle and the number of measurement values for the measuring instrument testo 312-4 can be set.

1 Activate file **Logger programme** ( ).

2 Enter measure cycle ( ) and Number of measure values ( ) → **Save** ( ).

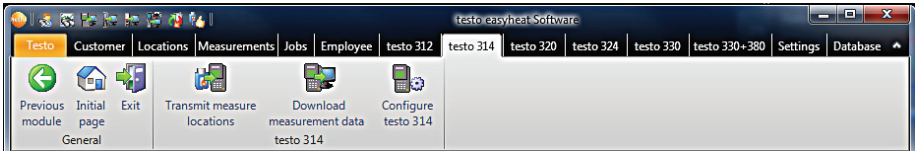
E.7.3.6 Memory

In the **Memory** tab, the memory or the measuring instrument testo 312-4 can be cleared.

Clear memory

▶ **Clear memory** ( ).

E.8 testo 314



! The **testo 314** menu/module group is only available if instrument support is activated for the testo 314 measuring instrument, see Settings-Configuration - Instuments, p. 46.

E.8.1 Transmit measure locations

Locations can be transmitted to the testo 314 measuring instrument via the **Transmit measure locations** module.

Opening the module

▶ **testo 314** ( ) → **Transmit measure locations** ( ).

The **Transmit measure locations** module is divided into two areas. The **Measure locations on PC** tab is located in the upper area while the **Measure locations on instrument** tab is located in the lower area.

E.8.1.1 Measure locations on PC

The **Measure locations on PC** tab shows the locations saved on the PC.

Search for a specific location

▶ Enter search criterion in a search box → Start search: **Search** ( ).

Transmit location(s) to measuring instrument

Options:

▶ Select all locations: **Select all** ( ).

▶ Cancel location selection: **Select none** ( ).

▶ Select location(s) ( ) → **Transmit** ( ).

Display location

▶ Activate location ( ) → **Display** ( ).

- The **Show measure location data** module is opened, see Show measure location data, p. 19.

Change location

▶ Activate location ( ) → **Changes** ( ).

- The **Change measure location data** module is opened, see Change measure location data, p. 20.

E.8.1.2 Measure locations on instrument

The **Measure locations on instrument** tab shows the locations which are saved in the instrument.

Select location(s)

Options:

▶ Select all location(s): **Select all** ( ).

▶ Cancel location selection: **Select none** ( ).

▶ Select location(s) ( ) → **Delete** ( ).

E.8.2 Download measurement data

Measurement protocols from the testo 314 measuring instrument are saved on your PC using the **Download measurement data** module.

Open module

▶ **testo 314** ( ) → **Download measurement data** ( ).

Save measurement protocol(s)

Options:

- ▶ Select all measurement protocols: **Select all** ( ).
- ▶ Cancel selection of measurement protocols: **Select none** ( ).

▶ Select measurement protocol(s) ( ) → **Read** ( ).

- The measurement protocol is saved on your PC at the same location as in the instrument. If the location of the selected measurement protocol is not available on your PC, you will be asked if it should be set up.

-or-

▶ Select measurement protocol(s) ( ) →**Download as ...** ( ) → Select target location → **OK**.

Delete measurement protocol

▶ Activate measurement protocol ( ) → **Delete** ( ) → **Yes** ( ).

- The measurement is deleted.

Display measurement protocol

! If the selected measurement has not yet been saved to the PC, this function is not available..

▶ Select measurement protocol ( ) → **View** ( ).

- The **Display measurement data** module is opened, see Display measurement data, p. 23.

E.8.3 Configure testo 314

The testo 314 measuring instrument can be configured with the **Configure testo 314** module.

Open module

▶ **testo 314** ( ) → **Configure testo 314** ( ).

E.8.3.1 Serial communication

! This menu appears when no connection to the instrument can be set up.

The interface for setting up the connection with the testo 314 measuring instrument can be selected.

▶ Select interface used ( ).

Option:

- ▶ Test connection to measuring instrument: **Test connection** ( ).

E.8.3.2 Clock

The date and clock in the instrument can be synchronised with the PC.

Synchronise date/time manually

- **Synchronise now** ( ).

Synchronise date/time automatically

- **Synchronise time of instrument while connecting** ( ).

E.8.3.3 Print text

The headers and footnote for protocol printouts in the testo 314 measuring instrument can be set up in the **Print text** tab.

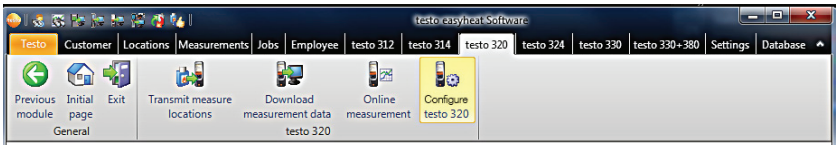
Set up Print texts

- Enter print texts in the text input boxes.

  Option:

  - Overwrite data with your own address data: **Own address data** ( ).

E.9 testo 320



! The menu / module group **testo 320** is only available if the testo 320 measuring instrument support is activated, see Settings - Configuration - Analyzers, p. 63.

E.9.1 Upload measure sites

Use the **Upload measure sites** module to upload measuring locations to the testo 320 measuring instrument.

Open the module

- testo 320 ( ) → Upload measure sites ( ).

The **Upload measure sites** module is divided into two sections. The **Measure sites on PC** tab is located in the top section, and the **Measure sites on analyzer** tab is located in the bottom section.

E.9.1.1 Measure sites on PC

The Measure sites on PC tab displays the measuring locations that are saved on the PC.

Finding a specific measuring location

▶ Enter a search criterion in a search field → start the search: Search (✎).

Transmitting measuring location(s) to the measuring instrument

Options:

▶ Select all locations: Select all (✎).

▶ Undo selection of all locations: Select none (✎).

▶ Select measuring location(s) (☑✎) → Upload (✎).

Displaying measuring location

▶ Activate measuring location (✎) → Show (✎).

- The Show measure site data module is opened, see Show measure site data, p. 21.

Changing the measuring location

▶ Activate measuring location (✎) → Change (✎).

- The Change measure site data module is opened, see Change measure site data, p. 22.

E.9.1.2 Measure sites on analyzer

The Measure sites on analyzer tab displays the measuring locations that are saved in the instrument.

Deleting location(s):

Options:

▶ Select all locations: Select all (✎).

▶ Undo selection of all locations: Select none (✎).

▶ Select measuring location(s) (☑✎) → Delete (✎).

E.9.2 Download measurement data

Use the Download measurement data module to save measurement protocols from the testo 320 measuring instrument to the PC.

Open the module

▶ testo 320 (✎) → Download measurement data (✎).

Saving the measurement protocol(s)

Options:

▶ Select all measurement protocols: Select all (✎).

▶ Undo selection of all measurement protocols: Select none (✎).

▶ Select measurement protocol(s) (☑✎) → Download (✎).

- The measurement protocol is saved under the same measuring location on the PC as on the instrument. If the location of the selected measurement protocol does not exist, this is automatically created.

-or-

▶ Select measurement protocol(s) (☑✎) Download as ... (✎) Select target location → OK.

- The measurement protocol is saved to the PC under the selected measuring location.

Deleting the measurement protocol

▶ Select the measurement protocol (✎) → Delete (✎) → Yes (✎).

- The measurement is deleted.

Displaying the measurement protocol

! If the selected measurement has not yet been saved to the PC, this function is not available.

▶ Select measurement protocol (☑✎) → Show (✎).

- The Display measurement data module is opened, see Display measurement data, p. 25.

E.9.3 Online measurement

Use the Online measurement module to carry out a flue gas measurement, during which the measuring instrument is controlled via the PC. The measuring values are transmitted directly to the PC and displayed.

Open the module

▶ testo 320 (✎) → Online measurement (✎).

E.9.3.1 Measure values, Display, Chart, Flue gas matrix

Carrying out the online measurement

! Measure values, Display, Chart: only the measurement parameters and units activated on the Display order tab (in the same module) are displayed.

Flue gas matrix: the measurement parameters relevant to the flue gas matrix are displayed.

1 Set measuring cycle: (✎).

2 Start measurement: Start (✎).

- The online measurement starts (before zeroing phase if applicable).
- The measure values are displayed:
  - · Measure values tab: table with all measurement channels and date / time of the individual measurements.
  - · Display tab: display fields with all measurement channels.
    - ▶ During a measurement, mean value, maximum, and minimum may be displayed instead of the actual values: Actual values (✎).
    - ▶ Change size of the display fields: move slider (✎).

▶ Display measure values in a separate window, which is always displayed on top: show mini window (✎).

- · Chart tab: measurement chart with 16 selectable measurement channels and automatic scaling of the time axis.
  - ▶ Set chart properties (displayed channels, line colour, scale): Settings (✎).
  - ▶ Save chart as a file: Save bitmap (✎).
    Save bitmap (✎) → Enter file name (✎) → Select file type (✎) → Save
- · Flue gas matrix tab: The current measuring value is displayed in the flue gas matrix via crosshairs.
  - ▶ Change measurement parameters displayed: O2/CO or CO2 / CO (✎).
  - ▶ Configure limit values: set predefined values by selecting Fuel and Installation (✎) or enter Limit O2 and Limit CO manually.

4 End measurement: Stop ( ).

- The online measurement is stopped.

  Options (only in Measure values folder):

  ▶ Save measure values: Save as … ( ).

  ▶ Export measure values to Microsoft Excel:Export Excel ( ).

  ▶ Export measure values to the clipboard (tab stop-separated text file): Clipboard ( ).

E.9.3.2 Display order

The available measurement channels are displayed in the All channels area. Only those measurement parameters and units in the measuring instrument's current display order are available.

The measurement channels shown on the PC during online measurement are displayed in the Shown channels section.

Setting the display order

▶ Add / delete measurement channels: Add ->, Add all ->, <- Delete or <- Delete All ( ).

▶ Set the order of measurement channels: Select measurement channel ( ) Up or Down ( ).

E.9.4 Configure testo 320

Use the Configure testo 320 module to configure the testo 320 measuring instrument.

Open the module

▶ testo 320 ( ) → Configure testo 320 ( ).

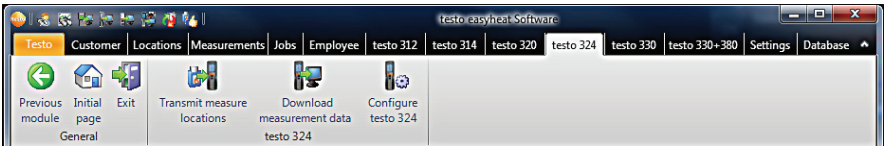
! If no connection to the instrument can be established, see Settings - Configuration - Analyzers p.63

▶ Select tab ( )

- The available configuration data is displayed in individual folders, whose names correspond to the function name in the measuring instrument's menu.

In some folders, changes to the configuration can be made. The change options largely correspond to those in the measuring instrument's menu, see instruction manual for the measuring instrument.

E.10 testo 324



! The menu / module group **testo 324** is only available if the testo 324 measuring instrument support is activated, see Settings - Configuration - Analyzers, p. 64.

E.10.1 Upload measure sites

Use the **Upload measure sites** module to upload measuring locations to the testo 324 measuring instrument.

Open the module

▶ testo 324 (✎) → Upload measure sites (✎).

The **Upload measure sites** module is divided into two sections. The **Measure sites on PC** tab is located in the top section, and the **Measure sites on analyzer** tab is located in the bottom section.

E.10.1.1 Measure sites on PC

The **Measure sites on PC** tab displays the measuring locations that are saved on the PC.

Finding a specific measuring location

▶ Enter a search criterion in a search field → start the search: **Search** (✎).

Transmitting measuring location(s) to the measuring instrument

Options:

▶ Select all locations: **Select all** (✎).

▶ Undo selection of all locations: **Select none** (✎).

▶ Select measuring location(s) (☑✎) → **Upload** (✎).

Displaying measuring location

▶ Activate measuring location (✎) → **Show** (✎).

- The **Show measure site data** module is opened, see Show measure site data,p. 20.

Changing the measuring location

▶ Activate measuring location ( ) → Change ( ).

- The Change measure site data module is opened, see Change measure site data, p. 22.

E.10.1.2 Measure sites on analyzer

The Measure sites on analyzer tab displays the measuring locations that are saved in the instrument.

Deleting location(s)

▶ Select measuring location(s) ( ) → Delete ( ).

Activate measuring location

▶ Select measuring location(s) ( ) → Activate ( ).

Options:

▶ Select all locations: Select all ( ).

▶ Undo selection of all locations: Select none ( ).

E.10.2 Download measurement data

Use the Download measurement data module to save measurement protocols from the testo 324 measuring instrument to the PC.

Open the module

▶ testo 324 ( ) → Download measurement data ( ).

Saving the measurement protocol(s)

Options:

▶ Select all measurement protocols: Select all ( ).

▶ Undo selection of all measurement protocols: Select none ( ).

▶ Select measurement protocol(s) ( ) → Download ( ).

- The measurement protocol is saved under the same measuring location on the PC as on the instrument. If the location of the selected measurement protocol does not yet exist on the PC, you are asked if you wish to create this.

-or-

▶ Select measurement protocol(s) ( ) → Download as ... ( ) → Select target location → OK.

Displaying the measurement protocol

! If the selected measurement has not yet been saved to the PC, this function is not available.

▶ Select measurement protocol (☑) → Show ().

- The Display measurement data module is opened, see Display measurement data, p. 25.

Deleting the measurement protocol

▶ Activate the measurement protocol () → Delete () → Yes ().

- The measurement is deleted.

E.10.3 Configure testo 324

Use the Configure testo 324 module to configure the testo 324 measuring instrument.

Open the module

▶ testo 324 () → Configure testo 324 ().

E.10.3.1 Analyzer

The Analyzer tab displays important information about the connected measuring instrument.

E.10.3.2 Print text

In the Print text tab, the headers and footers can be set up for the testo 324 measuring instrument report printouts.

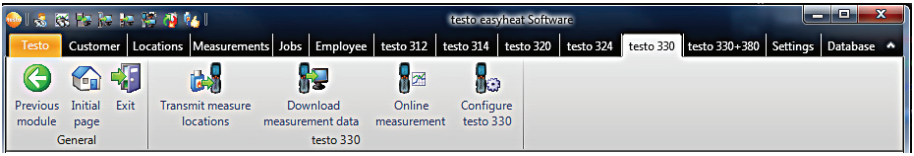
Setting up print texts

▶ Enter print texts in the text input fields Ready.

E.10.3.3 Memory

In the Memory tab, the memory of the testo 324 measuring instrument can be deleted.

E.11 testo 330



! The **testo 330** menu/module group is only available if instrument support for the testo 330 measuring instrument is activated, see Settings - Configuration - Instruments, p. 46.

E.11.1 Transmit measure locations

Locations can be transmitted to the testo 330 measuring instrument using the **Transmit measure locations** module.

Open module

▶ **testo 330** (✎) → **Transmit measure locations** (✎).

The **Transmit measure locations** module is separated into two areas. The **Measure locations on PC** tab is located in the upper area while the **Measure locations on instrument** tab is located in the lower area.

E.11.1.1 Measure locations on PC

The **Measure locations on PC** tab shows the locations which are saved on the PC.

Search for a specific location

▶ Enter search criterion in a search box → Start search: **Search** (✎).

Transmit location(s) to measuring instrument

Options:

▶ Select all locations: **Select all** (✎).

▶ Cancel selection of locations: **Select none** (✎).

▶ Select location(s) (☑✎) → **Transmit** (✎).

Display location

▶ Activate location (✎) → **Display** (✎).

- The **Show measure location data** module is opened, see Show measure location data, p. 20.

Change location

▶ Activate location (✎) → **Change** (✎).

- The **Change measure location data** module is opened, see Change measure location data, p. 22.

E.11.1.2 Measure locations on instrument

The **Measure locations on instrument** tab shows the locations which are saved in the instrument.

Delete location(s):

Options:

▶ Select all locations: **Select all** (✎).

▶ Cancel location selection: **Select none** (✎).

▶ Select location(s) (☑✎) → **Delete** (✎).

E.11.2 Download measurement data

Measurement protocols in the testo 330 measuring instrument can be saved on your PC via the **Download measurement data** module.

Open module

▶ **testo 330** (✎) → **Download measurement data** (✎).

Save measurement protocol(s)

Options:

▶ Select all measurement protocols: **Select all** (✎).

▶ Cancel all measurement protocols: **Select none** (✎).

▶ Select measurement protocol(s) (☑✎) → **Read** (✎).

- The measurement protocol is saved on your PC in the same location as on the instrument. If the location of the selected measurement protocol is not yet available on your PC, it is set up automatically.

-or-

▶ Select measurement protocol(s) (☑✎) → **Download as ...** (✎) → Select target location → **OK**.

- The measurement protocol is saved on your PC in the location selected.

Delete measurement protocol

▶ Select measurement protocol (✎) → **Delete** (✎) → **Yes** (✎).

- The measurement is deleted.

Display measurement protocol

! If the selected measurement has not yet been saved to the PC, this function is not available.

▶ Select measurement protocol ( ) → **View** ( ).

- The **Display measurement data** module is opened, see Display measurement data, p. 25.

E.11.3 Online measurement

A flue gas measurement, during which the instrument is controlled by the PC, is carried out via the **Online measurement** module. The readings are transmitted directly to your PC and displayed.

Open a module

▶ **testo 330** ( ) → **Online measurement** ( ).

E.11.3.1 Measure values, Display, Chart, Flue gas matrix

Carry out online measurement

! The **Flue gas matrix** tab is only available in combination with testo 330 Order no. 0632 3306 and 0632 3307 (see instrument specification plate).

! **Measure values, Display, Chart, Fluegas matrix**: Only parameters and measurement units are shown which are activated in the **Display order** tab (in the same module).

Fluegas matrix: The measurement parameters relevant for the flue gas matrix are displayed.

1 Set measurement cycle: ( ).

2 Set measurement sequence: ( ).

3 Start measurement: **Start** ( ).

- Online measurement starts (initialisation phase may possibly run first)
- The readings are displayed:
  - Measure values tab: Table with all measurement channels and data/time of single measurements.
  - Display tab: Display fields with all measurement channels.
    - ▶ Save readings manually (only available when the measurement cycle is set to 0s): **Save:** ( ).
    - ▶ During a measurement, mean value, maximum, minimum can be displayed instead of the actual values: **Actual values** ( ).
    - ▶ Change the size of the display fields: Move controller ( ).
    - ▶ Show readings in a separate window which is always in the foreground: **show min window** ( ).

· Chart tab: Measurement diagram with 16 selectable measurement channels and automatic scaling of the time axis.

▶ Set diagram properties (channels displayed, line color, scaling): **Properties** ( ).

▶ Store diagram as a file: **Store diagram** ( ).

Save bitmap ( )( ) → **Enter file name** (/) → **Select file type** (/) → **Save**

Fluegas matrix tab: The current measurement value is displayed with cross-hairs in the flue gas matrix.

▶ Change displayed measurement parameters: **O2/CO** or **CO2 / CO** ( ).

▶ Configure limit values: Set prescribed values using **Fuels** and **System type** (/) or enter **limit O2** and **limit CO** manually.

4 End measurement: **Stop** ( ).

- Online measurement is complete.

Options (only in readings folder):

▶ Save readings: **Save...** ( ).

▶ Export readings to Microsoft Excel: **Export Excel** ( ).

▶ Export readings to clipboard (text file separated by tab stop): **Clipboard** ( ).

E.11.3.2 Display order

The measurement channels available are shown in the **All channels** area. Only the parameters and measuring units are available which are in the current display sequence of the measuring instrument

The measurement channels, which appear on your PC during online measurement, are shown in the **Shown channels** area.

Setting up the display sequence

▶ Add/delete measurement channels: **Add ->**, **Add all ->**, **<- Delete** or **<- Delete all** ( ).

▶ Arrange order of measurement channels: Select measurement channel ( ) → **Up** or **Down** ( ).

E.11.4 Configure testo 330

The testo 330 analyser can be configured with the **Configure testo 330** module.

Open module

▶ **testo 330** (✎) → **Configure testo 330** (✎).

! When no connection to the instrument can be set up, see Settings - Configuration, Instruments, p.63.

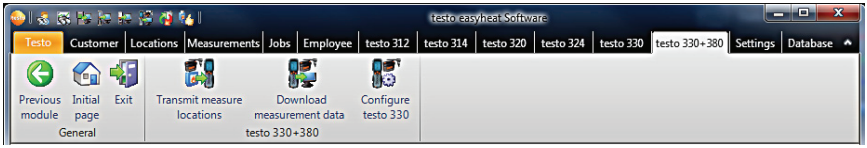
Display configuration data / Change configuration

▶ Select tab (✎)

- The available configuration data are displayed in individual tabs whos names correspond to the function desription in the measuring instrument's menu

In some folders, changes to the configuration can be made. The change possibilities generally correspond to those in the menu of the measuring instrument, see Instruction manual for the measuring instrument.

E.12 testo 330 + 380



! The menu / module group testo 330 + 380 is only available if the testo 380 measuring instrument support is activated, see Settings - Configuration - Analyzer, p. 64

E.12.1 Upload measure sites

Use the Upload measure sites module to upload measuring locations to the testo 330 measuring instrument.

Open the module

▶ testo 380 (✎) → Upload measure sites (✎).

The Upload measure sites module is divided into two sections. The Measure sites on PC tab is located in the top section, and the Measure sites on analyzer tab is located in the bottom section.

E.12.1.1 Measure sites on PC

The Measure sites on PC tab displays the measuring locations that are saved on the PC.

Finding a specific measuring location

▶ Enter a search criterion in a search field → start the search: Search ().

Transmitting measuring location(s) to the measuring instrument

Options:

▶ Select all locations: Select all ().

▶ Undo selection of all locations: Select none ().

▶ Select measuring location(s) () → Upload ().

Displaying measuring location

▶ Select measuring location () → Show ().

- The Show measure site data module is opened, see Show measure site data, p. 20.

Changing the measuring location

▶ Select measuring location () → Change ().

- The Change measure site data module is opened, see Change measure site data, p. 22.

E.12.1.2 Measure sites on analyzer

The Measure sites on analyzer tab displays the measuring locations that are saved in the instrument.

Deleting location(s):

▶ Select measuring location(s) () → Delete ().

Options:

▶ Select all locations: Select all ().

▶ Undo selection of all locations: Select none ().

E.12.2 Download measurement data

Use the **Download measurement data** module to save measurement protocols from the testo 380 measuring instrument to the PC.

Open the module

▶ testo 380 (✎) → Download measurement data (✎).

Saving the measurement protocol(s)

Options:

▶ Select all measurement protocols: **Select all** (✎).

▶ Undo selection of all measurement protocols: **Select none** (✎).

▶ Select measurement protocol(s) (☑✎) → **Download** (✎).

- The measurement protocol is saved under the same measuring location on the PC as on the instrument. If the location of the selected measurement protocol does not exist, this is automatically created.

-or-

▶ Select measurement protocol(s) (☑✎) → **Download as ...** (✎) → Select target location → **OK**.

- The measurement protocol is saved to the PC under the selected measuring location.

Deleting the measurement protocol

▶ Select measurement protocol (✎) → **Delete** (✎) → **Yes** (✎).

- The measurement is deleted.

Displaying the measurement protocol

! If the selected measurement has not yet been saved to the PC, this function is not available.

▶ Select measurement protocol (☑✎) → **Show** (✎).

- The **Display measurement data** module is opened, see Display measurement data, p. 25.

E.12.3 Set-up testo 330

Use the **Set-up testo 330** module to configure the testo 330 measuring instrument.

Open the module

▶ testo 330 + 380 ( ) → Set-up testo 330 ( ).

! If no connection to the instrument can be established, see Settings - Configuration - Analyzers p. 63

Showing configuration data / changing configuration

▶ Select tab ( )

- The available configuration data is displayed in individual tabs, whose names correspond to the function name in the measuring instrument's menu.

In some folders, changes to the configuration can be made. The change options largely correspond to those in the measuring instrument's menu, see instruction manual for the measuring instrument.

E.13 Settings

The **Report design**, **Configuration** and **Information** modules are opened via the **Settings** menu. You can also open these modules via the navigation bar.

E.13.1 Report design

In the **Report design** module, the report templates for printing out measurement protocols and those for inputting unlogged data can be changed to suit the user's specific requirements, or new ones can be created.

E.13.1.1 Report templates for printing

Open the module

1 Settings ( ) → Report design ( ) → Report templates for printing ( ).

- The available report templates are displayed.

! Where measurement methods are not displayed, measurement protocols are printed out in a fixed standard layout. You can, however, create a report template specific to these measurement methods.

Creating a new report template

▶ Create a new report template: **New** (✎) → Enter a name for the report template → **OK** (✎). → Create new report template

Changing a report template

▶ Activate report template: **OK** (✎) → Adapt report template

Copying a report template

▶ Select report template: **Copy** (✎) Enter new name for the report template **OK** (✎). → Adapt report template as required.

Deleting a report template

! Report templates required by the system cannot be deleted.

▶ Select report template: **Delete** (✎) → **Yes** (✎). → Report template is removed from the list.

Renaming a report template

▶ Select report template: **Rename** (✎) → Enter new name for the report template → **OK** (✎).

The **Report design** module is divided into two sections. The folders **Field**, **Font**, **Border** and **Page** are located in the left-hand section, and the folders **Editor** and **Preview** are located in the right-hand section.

Field, Font, Border, Page

The box properties of the form boxes (field type, font and margin) and the page properties can be changed in the tabs.

! The displayed properties for box, font and margin are valid for the form box which is selected in the **Editor** folder (in the same module).

Set up box type

▶ Select box type in **Field** (✎):

- **Textfield**: Text is entered in the form box.
- ··Data field: The value stored in the database (measuring value, customer or system data) of the selected data field is inserted into the report field. Alternatively, a value that is filled out in a data entry form can be read out..
  - ▶ Select data box (✎).
- **Graphics**: The selected graphic is entered in the form box.

▶ Select graphic: **File ...** () → Select file → **Open** ().

Logo: The logo stored under **Settings** - **Configuration** - **Own data** is entered.

· **Chart (measured data)**: The measurement protocol readings stored in the database are input as graphics in the form box.

· **Table (Measure data)**: The measurement protocol readings stored in the database are input in table form in the form box.

By marking the printing area, you can determine which area of the table will be printed.

▶ **Select printing area** (): Limit printing area or print out entire table

▶ **Select range of table to be printed** (): Select individual areas or print out entire table

▶ **Select data of table to be printed** (): Select the data to be printed**Determining the font**

! This function is only available if the **Textfield** or **Data field** box type is selected.

▶ Select font in **Font** ():

· **Standard font**: The standard font set in the Page folder is used.

· **Special font**: A font deviating from the standard font is used.

▶ Select font: **Font ...** () → Set values → **OK** ().

· **Barcode**: The “Barcode” font is used.

· Check box (from data entry form): A check box transferred from a data entry form is displayed as a check box (without this font, it represents only the values 0 and 1)

▶ Select alignment in the **Alignment** text box ().

Border settings

▶ Select border properties for the form box in **Border** ().

Page settings

Page properties and the form standard font can be changed in the **Page** tab.

▶ Input and set page properties ().

▶ Define standard font: **Default font ...** () → Adjust values → **OK** ().

Editor

In the Editor tab, report fields can be inserted into the report, their size can be changed and/or they can be deleted.

Insert new form box

▶ Select corner point of form box on a free area of the form (keep pressed) → Drag form box until it is the right size → End input, release ( ).

Move form box

▶ Select form box (and then keep pressed) → Move form box to required position → End moving, release ( ).

Delete form box

▶ Highlight form box ( ) → [Del] (keypad).

Preview

A preview of the report is displayed in the Preview tab.

Saving a report

▶ Save ( ).

- The saved report is used for printing out measurement protocols of the selected measurement type.

Saving a report as a template

▶ Backup as ... ( ) → Enter report name → OK ( ).

- The report is saved and can be retrieved when necessary.

Retrieving a report

▶ Restore from ... ( ) → Select report name ( ) → OK ( ).

- The report is retrieved.

Printing a report

▶ Print ( ).

- The report is printed out as displayed in the Preview folder.

Undoing an entry

▶ Undo ( ).

- A work step is deleted at the click of a mouse.

E.13.1.2 Report templates for data entry

Open the module

1 Settings ( ) → Report design ( ) → Report templates for data entry ( ).

- The available report templates are displayed.

Creating a new report template

▶ Create a new report template: New ( ) → Enter a name for the report template → OK ( ).→ Create new report template

Changing a report template

▶ Activate report template: OK ( ) → Adapt report template

Copying a report template

▶ Select report template: Copy ( ) → Enter new name for the report template OK ( ) → Adapt report template as required.

Deleting a report template

▶ Select report template: Delete ( ) → Yes ( ). → Report template is removed from the list.

Renaming a report template

▶ Select report template: Rename ( ) Enter new name for the report template OK ( ).

The Report design module is divided into two sections. The tabs Field, Font, Border and Page are located in the left-hand section, and the tabs Editor and Preview are located in the right-hand section.

Field, Font, Border, Page

The field properties of the report fields (field type, font and border) and the page properties can be changed in the tabs.

! The properties displayed for the field, font and border are valid for the report field selected in the Editor tab (in the same module).

Setting the field type

▶ Select the field type under Field ( ):

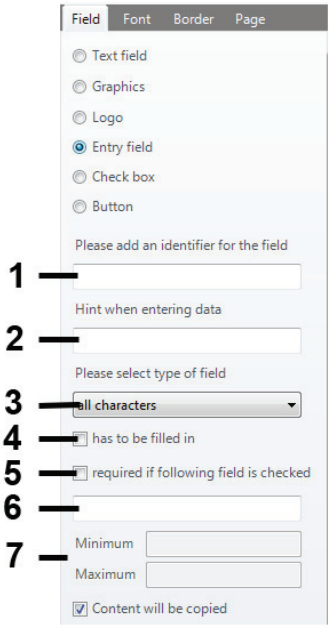
· Text field: Text is inserted in the report field as it is entered.

· Graphics: The selected graphic is inserted in the report field.

▶ Select graphic: File ... ( ) → Select file → Open ( ).

· Logo: the logo saved under Settings - Configuration - Own data is inserted.·

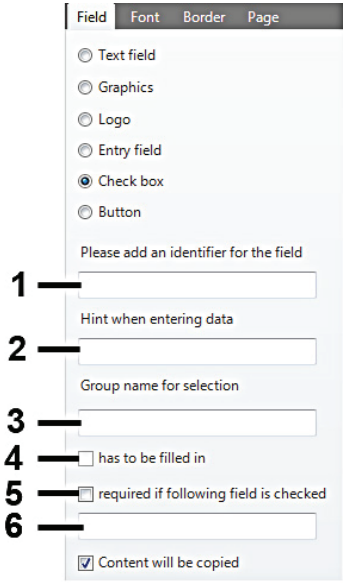
· **Entry field:** Properties can be assigned to the entry field.



1 Name of the entry field
2 Information text for additional information that is displayed while the report is being filled out
3 Selection list for a data type which the data that is to be entered must correspond to
4 Check box
5 Check box
6 Name of the check box (only if 5 is activated)
7 Restrict number range (only if figure or number is selected under point 3)

▶ Assign properties → **Save** ( )

· Check box: Properties can be assigned to the check box.



1 Name of the entry field
2 Information text for additional information that is displayed while the report is being filled out
3 Name of a group of check boxes. Only one check box at a time can be selected from all those in the group.
4 Check box
5 Check box
6 Name of the check box (only if 5 is activated)

▶ Assign properties → Save ( ).

Making font settings

! This function is only available if Text field or Data field is selected as the field type.

▶ Select the font under Font ( ):
  · Standard font: the standard font set in the Page tab is used.
  · Special font: a font other than the default font is used.
    ▶ Select font: Font ... ( ) → Set values OK ( ).
  · Barcode: the “Barcode” font is used.
▶ Select the alignment in the text field under Alignment ( ).
▶ Select the font colour under Color (only displayed in the Preview tab).
▶ Select the background colour for the field under Background color.

Making border settings

▶ Select the border properties of the report field under Border ().

Making page settings

The page properties and standard font for the report can be changed in the Page tab.

▶ Enter or set page properties ().

▶ Define the standard font: Standard font ... () → Set values → OK ().

Editor

In the Editor tab, report fields can be inserted into the report, their size can be changed and/or they can be deleted.

Inserting a new report field

▶ Select the corner of the report field on a free area of the report (press and hold ) → Drag the report field to the required size → Complete insertion (release ).

Moving a report field

▶ Select the report field ( and then press and hold) → Drag the report field to the required position → Complete move (release ).

Deleting a report field

▶ Select the report field ( ) → [Del] (keypad).

Saving a report

▶ Save ().

- The saved report is used for printing out measurement protocols of the selected measurement type.

The saved report is available under Measurements → Display measurement data → Data entry () for filling in. Its fields can be integrated into templates for printing.

Printing a report

▶ Print ().

- The report is printed out as displayed in the Preview folder.

Undoing an entry

▶ Undo ().

- A work step is deleted at the click of a mouse.

Preview

A preview of the report is displayed in the Preview tab.

E.13.2 Configuration

Open module

▶ **Settings** (☜) → **Configuration** (☜).

E.13.2.1 Instruments

In the Analyzers tab, the instruments that are to be supported by the software can be selected.

▶ Activate the required instruments that are to be used with the easyHeat software: (☑☜).

In the case of the instruments testo 330, testo 320 and testo 324, the interface used can also be set:

▶ Activate the interface used with (◉☜).

E.13.2.2 Programme

The user-specific programme settings can be made in the **Programme** tab.

▶ **Pocket PC synchronization**: (☑☜).

Job management

▶ **Job management**: (☑☜).

E.13.2.3 Customer data

You can enter presettings for setting up customer and location data in the **Customer data** tab.

▶ Activate required functions (☑☜).

E.13.2.4 Own data

Your own address data can be input in the **Own data** tab.

▶ **Own data** (☜) → Enter/change address data.

E.13.2.5 Color scheme

In the **Color scheme** tab , the screen presentation can be selected.

▶ Select desired screen presentation (◉☜).

E.13.4.6 Software Update

Regular automatic checking for later versions of the software can be activated in the Software Update tab.

! **Check automatically for software updates:**
An Internet connection is required for the regular check.

E.13.2.7 Language

The country-specific language can be selected in the Language tab.

- Use language selected in the regional settings of the operating system: ( )
- User selected language: ( ).

E.13.2.8 Backup

Presettings for data backups are made in the **Backup** tab.

! To protect your data from a fault in the hard disk, your backup files should be saved on another data carrier.

Select directory for backup files

- **Search** ( ) → Select directory → **OK** ( ).

Determine backup methods

- **Full backup** ( ) → Select required the period for database backups ( ).
- **Changes backup** ( ) → Select required the period for database backups ( ).
- Backup measure data during online measurement: ( )

E.13.3 Information

The **Information** module contains 4 folders in which important information for the PC used and for the software is shown. This information is important if you contact our hotline and will help us to diagnose the fault.

Open a module

- **Settings** ( ) → **Information** ( ).

E.14 Database

E.14.1 Full backup

1 Full backup of data: **Database** (✎) → **Full backup** (✎).
2 Confirm **Information 3010**: **OK** (✎).

E.14.2 Incremental backup

1 Save changes since last data backup: **Database** (✎) → **Incremental backup** (✎).
2 Confirm **Information 3009**: **OK** (✎).

E.14.3 Restore database

1 Open **Restore database** window: **Database** (✎) → **Restore database** (✎).
2 Restore data: Select time for restore (✎) → **OK** (✎).
3 Confirm **Information 3013**: **OK** (✎).

E.14.4 Repair and compact

Faults in the database occurring after a system crash or power failure can be corrected.

▶ Repair faults in database: **Database** (✎) → **Repair and compact** (✎).

F. Questions and Answers

Question	Possible reasons	Answer
Uninstall software.	-	▶ Use Windows uninstall routine.

If your query was not included, please contact your nearest distributor or Testo's Customer Service. You will find contact details in our in Internet at www.testo.com.

0970.0350 en 09 V02.80-0 en-GB