METREL ES Manager

Instruction manual

Version 2.0
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Use the Bookmarks on the left side of the window to select or search for a topic. You can also select one of the following **Quick links** to start learning about ES Manager.

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➢   [Online support information](#)

➢   [End-User Licence Agreement](#)

➢   [Getting started](#)

2 Introduction to Metrel ES Manager

2.1 What is Metrel ES Manager?

Metrel Electrical Safety Manager is a common PC software application for management of the new generation of Metrel's instruments. The wide palette of Metrel's electrical safety testers, portable appliance testers, machine testers and industrial safety testers can be managed by one single application. It has a unified user interface with the new generation of Metrel's instruments – same view same meaning.

ES Manager enables pre-treatment of test object structure and related measurements on the PC, uploading to the instrument, downloading of finished test results to the PC, viewing, editing archiving and various professional test reports generation and printing.

Depending on the model or type of the target instrument, the user can create custom Auto Sequence® measurement tests and custom inspection tests. Auto Sequences®, and also single tests, can be integrated into the custom created test object structures and then uploaded into the measurement instrument.

Professional reports are based on predefined templates according to the national standards or the rules of regulatory organisations where the user enters all the needed protocol data while the measurement results are automatically inserted into the predefined forms.

Functionality of the **Metrel ES Manager** PC software program depends on the licence key, which is always related to the serial number of the purchased instrument:

- Feature ready licence
- BASIC licence
- PRO licence

Reports based on predefined templates according to national standards or the rules of regulatory organisations are available with PRO licence only.

2.1.1 User Interface
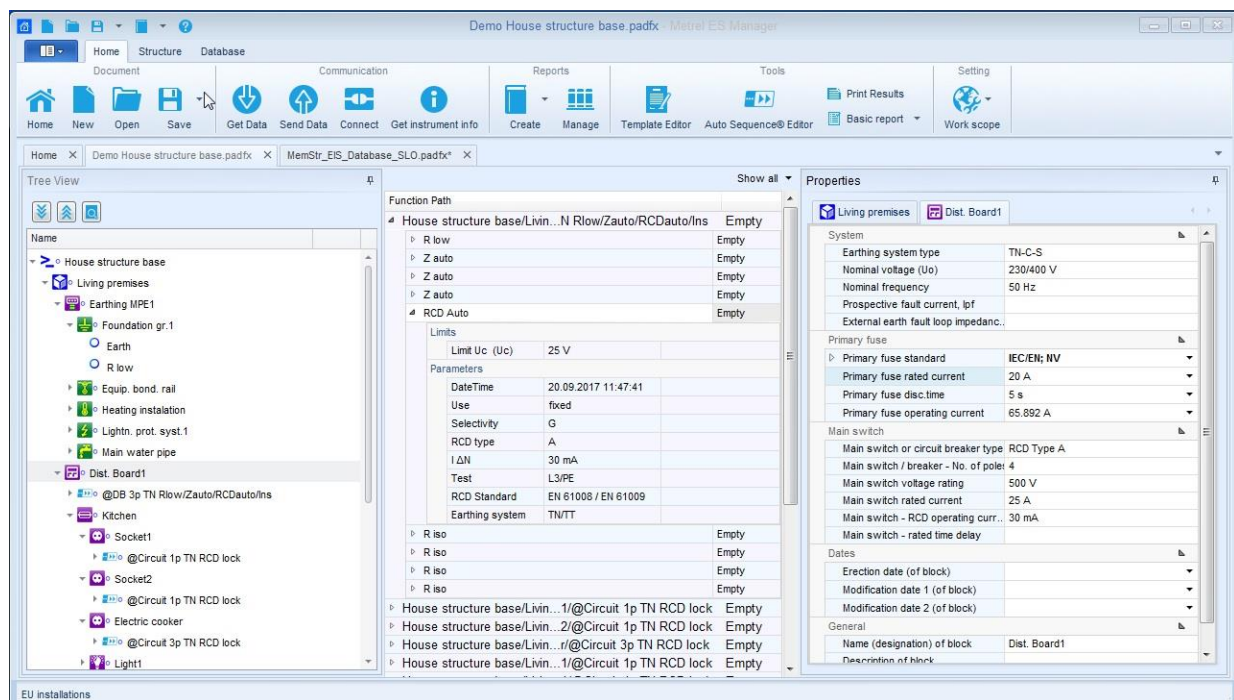
Figure 2.1: Main Window View

User interface main features:

- The Main window interface presentation fields organization allow quick selection of structure elements and test data using a Windows Explorer-like Tree View

- Properties of selected structure elements and test data are instantly displayed in multiple presentation fields of the Main window

- By dragging, docking and resizing the presentation fields of the Main window, working environment can be customized in numerous ways

2.1.2 Connectivity

- Supports multiple Work Scopes simultaneously for electrical safety testers, portable appliance testers, machine testers and industrial safety testers

- USB and RS-232 serial data communication is supported

Note

Please note that some parts of program can be changed without notice in new software versions, and therefore might differ from the information in this manual. If you encounter such differences, we will gladly accept your e-mail with your suggestions and include or change the necessary information in our next hotfix or update.

3 End-User Licence Agreement

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4 Software Installation

4.1 System Requirements

Before installation, you should check that your system meets the following requirements:

Supported Operating Systems:

- Windows 7, 32-bit & 64-bit

- Windows 8, and 8.1 32-bit & 64-bit

- Windows 10, 32-bit & 64-bit

Installed System Memory (RAM):

- Windows 7: min. 2 GB (4 GB recommended)

- Windows 8 and 8.1: min. 2 GB (4 GB recommended)

- Windows 10, 2 GB (4 GB recommended)

Hard Disk Space:

- At least 400 MB of free space for the installation files and documentation

- Additional 280 MB (x86) or 610 MB (x64) of free space if Microsoft.NET Framework (4.0 or higher) is not previously installed

- Additional disk space (20 GB recommended) is needed for downloading and saving ES Manager data files (A single ES Manager data file can be up to 8 GB). Additional disk space (20 GB recommended) is needed for downloading and saving ES Manager data

4.2 Installing the software

To install the software, run the installation application from the CD `Setup.exe`. The second option is to download the application from Metrel Download centre and run the installation application as described above. The installation wizard will guide you through the language and instrument selection and installation of ES Manager.

4.3 Software updates

For automatic detection of the latest Metrel ES Manager update, internet connection is needed. If a new version of software is detected, ES Manager will display a message with a link in the bottom right corner of the screen during every start-up. By clicking on it is available to download and install the latest version of software Metrel ES Manager.
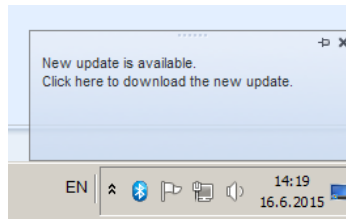
Figure 4.1: Update message and a link

Additional access to get new software update is from the About screen. For details regarding the new software version (new features, bugs fixed,…) see Release notes.

Figure 4.2: About screen

5 Getting started

5.1 Quick guides and tutorials

5.1.1 Introductory Guides

Before starting to use Metrel ES Manager, here is some information about the basic features. The following sections will explain the way data are organized in Metrel ES Manager and show you how to use advanced features and perform your work effectively.

- ➢   [Metrel ES Manager user interface Components](#)
- ➢   [Creating Data Structures](#)
- ➢   [Communication with Instruments](#)
- ➢   [Printing Results](#)
- ➢   [Creating Reports](#)
- ➢   [Manage Reports](#)
- ➢   [Report Templates](#)
- ➢   [Troubleshooting](#)

6 User Interface Components

6.1 Introduction

After start-up, Metrel ES Manager Welcome screen appear with Menu tabs (❶) on the top and Home tab active in the working area (❷). When connected to the internet, update status presented in bottom right corner (❸) is automatically checked.

Default scope of work area is displayed in the bottom left corner of the window (❹). Check Work scope setting before start a new data structure file. When existing data structure file is opened, Work scope is automatically set.
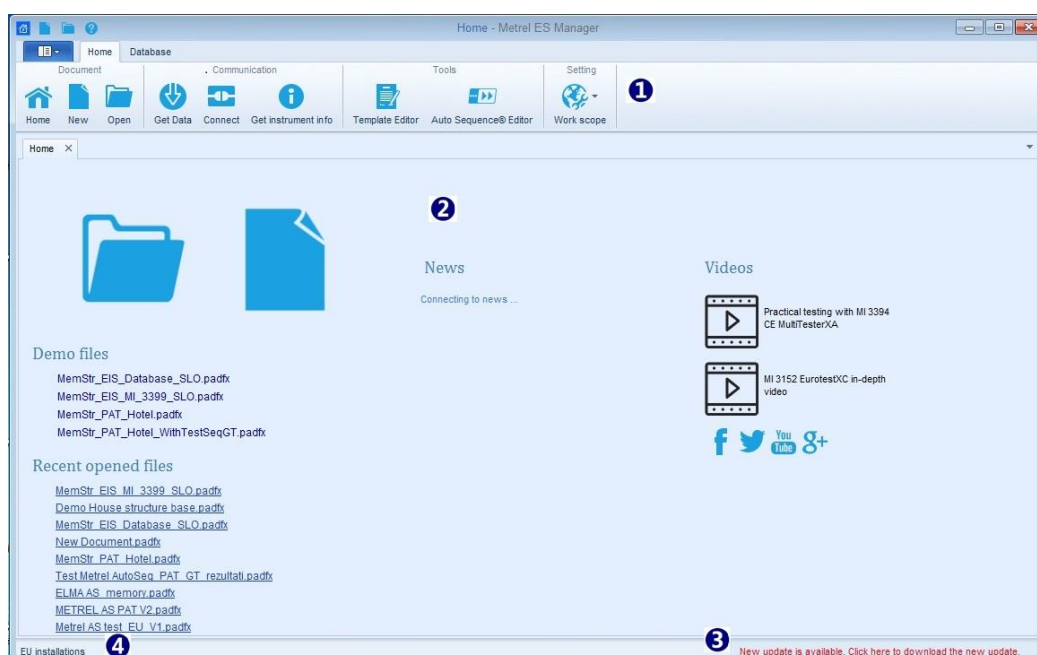

Figure 6.1: Metrel ES Manager Startup screen

User options available from welcome screen Home tab working area are:
- ▢ ▯ : Open existing or start new data structure file
- **Demo Files**: Open embedded demo data structure files from the list
- **Recent opened files**: Open data file from the list
- **News**: Check Metrel News
- **Videos**: Watch Metrel videos on YouTube
- ▢: Access Metrel pages on internet social media

6.2 Menu Tabs

Menus are organized in tab style, **Figure 6.2**. Each menu tab opens a subset of functions:
- **Home** menu tab is active by default, providing managing of data files, reports and communication with instruments, Work scope setting and access to additional tools.
- **Structure** tab provides Structure elements and Measurements to build custom object structure test database.
- **Database** tab provides Client Contacts data organization and Structure objects Name customization.

- **Main** menu tab provide ES Manager Version data and Help file. Functions provided are data Import, Export and merging of data files. Settings should be checked before first start.

Figure 6.2: Menu tabs

6.2.1 Main tab menu functions

When Main tab is selected, drop down menu for function selection appear on the screen. Document handling and Report Creation functions are common with Home tab, other functions are specific and can be accessed from Main tab menu only.
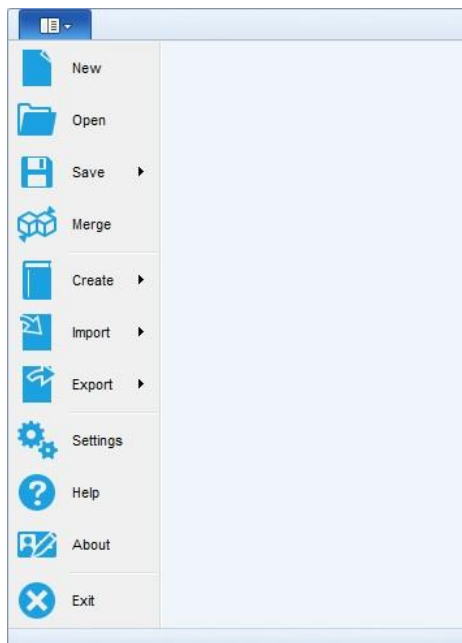

Figure 6.3: Main tab menu

Main tab menu specific functions:

- : Combines two Metrel ES Manager Data structure files into single file. From Merge files menu, user can select master file and target file. All data are merged, same items contained in target file are overridden with master file items.

- :Support for importing data from previous generation of management software; **Options**:
  Import: import Euro Link PRO data structure files (EUL files for instruments EurotestXE)
  Import structure only: import structure only from EUL files (instruments EurotestXA)
  Import from PAT Link PRO: import data files exported from PATLink PRO
  Import from aPAT: import data files exported from android application aPAT

- : Support for exporting data to Excel or XML file format;
  Options:
  ToExcel Basic export: exports Structure and Test data to Excel table
  ToExcel PAT export: exports Structure, Test and Appliance data to Excel table
  ToXML Basic export: exports Structure and Test data to XML file
  ToXML PAT export: exports Structure, Test and Appliance data to XML file

- : Opens menu for setting general and global data, language, managing licences and printout headers. See Chapter 6.2.1.1 Settings Menu for details.

- : Opens Metrel ES Manager Help menu. PDF reader must be installed on PC for help file reading.

- : Metrel ES Manager version information and Check for software updates option.

- : Exits application.

6.2.1.1 Settings Menu

Settings Menu functions are organized in tab style, see **Figure 6.4: Settings Tabs example**.
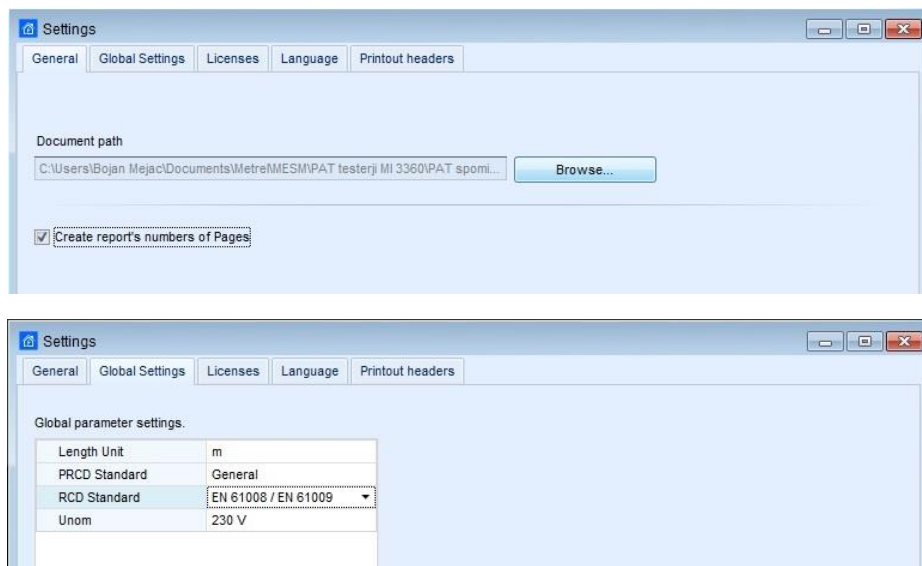
Figure 6.4: Settings Tabs example

General tab functions

Set default folder for Metrel ES Manager Documents. Use browser to select existing or set new folder on PC, then confirm selection.

Default document path is offered every time the document handling functions (Save, Save as, Open) are activated. It is also default search folder, when Upcoming retests Tool from home tab is activated.

Options: Create report's numbers of Pages; uncheck if manual page numbering is required for Reports.

Global Settings tab

Global parameters setting. Review current settings, if necessary set new with selection from drop-down list; confirm new selection.

Licences tab functions

Instrument serial number and it licence key must be entered to activate functionalities of the ES Manager software adjusted to individual measuring instrument. The serial number of the instrument, the set of associated license keys and it Feature set are shown in the table, see **Figure 6.5: Licenses tab menu.**
Options:

Serial Number [field] : Field for manual entry of instrument Serial Number

License Key [field] : Field for manual entry of associated License Key

[Add] : Add manual entry to the list

[Import license from File] : Opens browser to import Licence key from the file; navigate to the folder location on the PC, select Licence file (*.lic) and Open it.

[Export licenses to File] : Opens browser for exporting selected Licence key to the file; name the Licence file, navigate to the folder location on the PC and Save.

[Synchronize licenses] : Synchronize License keys with connected instrument.
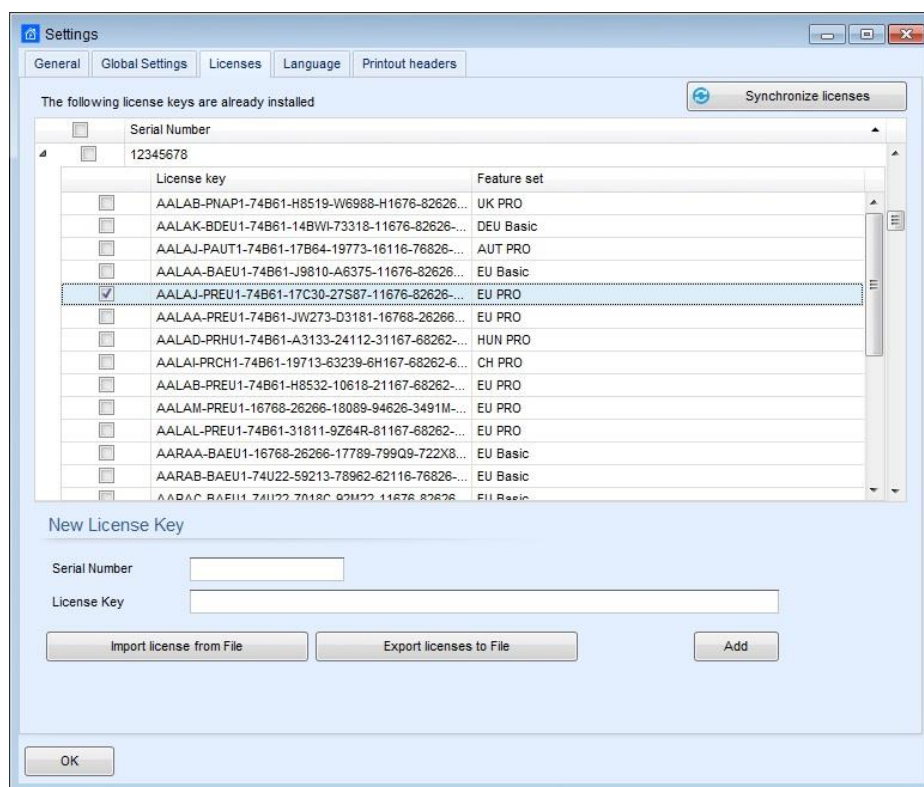

Figure 6.5: Licenses tab menu

Note:
Basic licence key offers limited managing of professional Reports, they could be filled with downloaded data, but printing is disabled.
PRO licence key offers full functionality of professional Reports associated with Licence key Feature set.

Language tab

English (United Kingdom) : Current language is marked with blue dot in selection field. Select user language from the list. New selection will take effect after Metrel ES Manager restart.

Printout headers tab functions

User can define custom header logo and text fields content printed in Header field of the document, separately for Print results function and Basic report function available from Main tab Tools menu.

6.2.2 Home tab functions

Function groups provided from Home tab menu are:
- Document
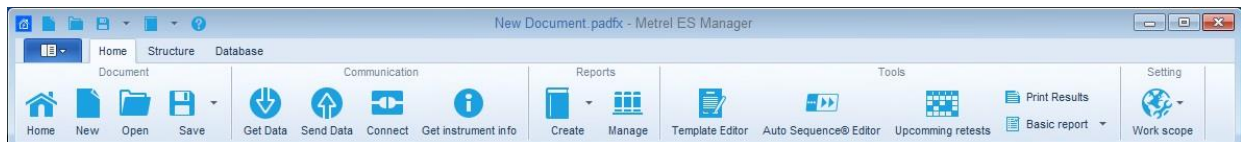- Communication
- Reports
- Tools
- Setting

Figure 6.6: Home tab menu

Document menu

- : Navigates to welcome screen.

- : Creates a new, empty ES Manager document/database.

- : Opens an existing ES Manager document for analysing and editing.

- : Save the ES Manager document/database.
  Options:
  Save - Saves the currently focused ES Manager document file to the disk. If the file has not been saved yet (data was downloaded from the instrument, or user created a new file), the user will be prompted to define a location and name for the file.
  Save as - File will be saved under different name. The user is prompted to define a new location and name for the file.

Communication functions

Communication menu contains commands related to downloading data from / uploading data to instruments.

- Get Data : Gets data from instrument.

- Send Data: Sends data to instrument.

- Get instrument info : Basic informations and Firmware update status (if PC is connected to the internet) of the instrument are presented on the screen.

- Connect : Opens menu window for managing transfer of group of data files between connected instrument and PC.

Reports functions

Reports tools group from Home menu tab are available only when Data structure file is opened.

- Create : Opens list of prescribed or standardized Report Forms.
  Options:
  Create Report: Creates Report based on selected Report form
  Create from Template: Creates Report based on Report template file (*.rtmpl); user is prompted to set 'Date Filter' before opening to present tests performed within set date period only.

- Manage : Opens list of existing reports for managing based on current selected data structure file.

Tools menu

- Template Editor : Opens browser to navigate to the Report template files folder location on the PC. Selected Report template file (*.rtmpl) is opened in Report editor.

- Upcomming retests : Opens menu window for managing Scheduled retests for appliance testing. Note: Document path should be set first (see Chapter 6.2.1.1 Settings Menu); Scheduled retest editor will automatically search for appliances within Data structure files saved in the set folder location.

- Print Results : Opens Results report in Preview window, from which page layout could be edited before printing or exporting to pdf or image file.

- **Basic report** ▾: Opens compact form of Results report in Preview window, from which page layout could be edited before printing or exporting to pdf or image file.
  Option: 'Filtered basic report' allow user to set date filter for presented results.

- **Auto Sequence® Editor**: Tool for programming Auto Sequence® tests. Refer to individual Instruction Manual of instruments for more information.

Setting menu

- **Work scope** ▾: Choose the scope for applying working area from available menu of Work scopes: LV and HV installations safety testing, portable appliance testing, production line safety testing, industrial machine testing …Structure elements, Measurements, Tools and Reports are adjusted to selected area.

6.2.3 Structure Tab functions

Structure tab provides structure elements, Measurements and necessary editing commands to build custom tree-like structure of the test object. Function groups provided from Structure tab menu (**Figure 6.7**) are:
- Edit
- Structure
- Measurements

Elements of the tree structure can be equipped with planed measurements to be performed on test location. Structure elements available from Structure group and tests available from Measurements group depends on Work scope selection from Main tab / Setting menu.
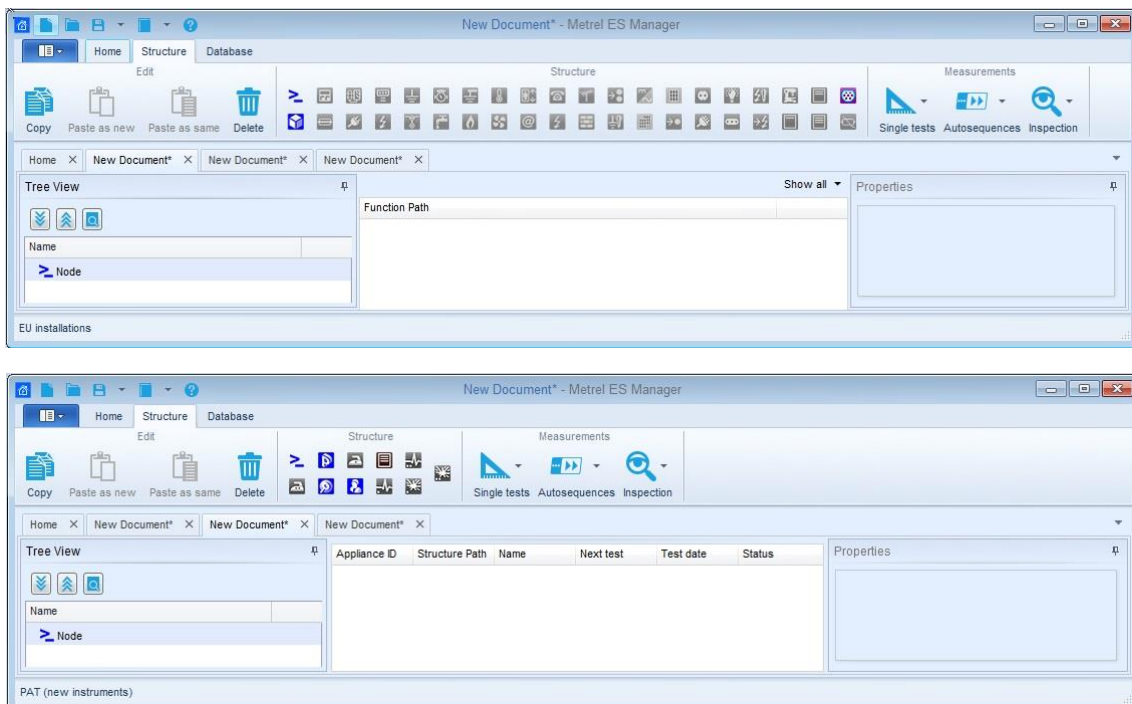

Figure 6.7: Structure tabs – Installations and PAT Work scope

Edit menu group

Basic editing command icons are provided in Edit menu group. By clicking on icon, command is executed on selected data structure element. By mouse right-clicking on data structure element, context sensitive menu appear on the screen, from which additional editing commands can be selected (**Figure 6.8.**) Depending on the node selected, different menu items which apply to that type of node will be displayed.
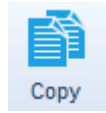
- **Copy** : Copies selected data structure element together with all subtree data structure elements and associated measurements to the clipboard.
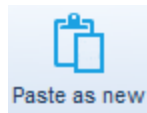
- **Paste as new** : Paste data from the clipboard to the selected data structure element within existing or another data structure file. The results of measurement are not included. Measurements are pasted as new empty measurements. Command is disabled if no data was copied or if the current selected element does not allow pasting.
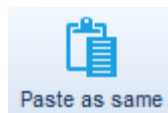
- **Paste as same** : Paste data from the clipboard to the selected data structure element within another data structure file. When within same file, command is executed as Paste as new; duplicates of unique elements are not allowed within same file. Command is disabled if no data was copied or if the current selected element does not allow pasting.

- **Delete** : Deletes the currently selected data structure element together with all subtree data structure elements and associated measurements.

Figure 6.8: Context sensitive edit commands

Structure menu group

Menu group Structure contains all structure elements for design of custom specific Data structure for on-site testing. Structure group elements type depends on Work scope setting (**Figure 6.9**). With click on element it is inserted into the structure tree.

Structure elements are in hierarchical relationship. Parent element type (currently selected element within tree structure) define, which elements can be inserted as child elements, those elements are highlighted, and the rest of elements are dimmed. By positioning the mouse pointer to the element, it name and description are presented.
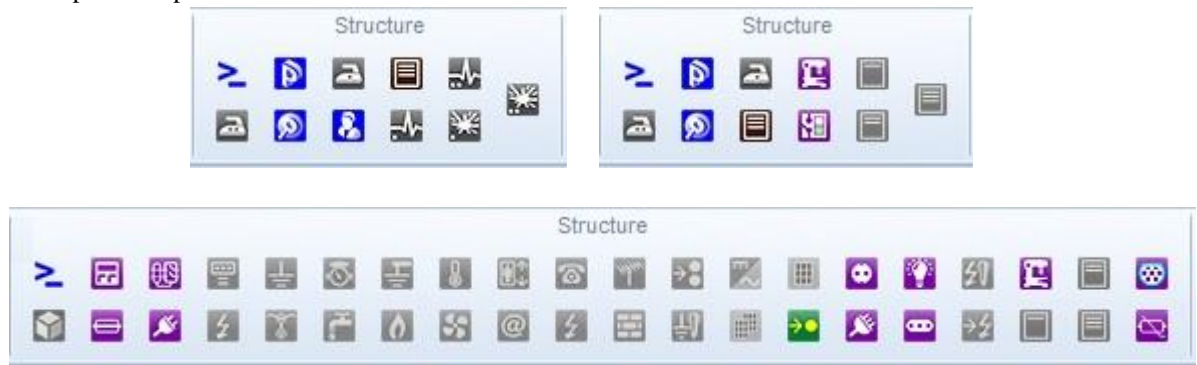
Figure 6.9: Structure elements – Work scope PAT, Production Line Testing and Installations
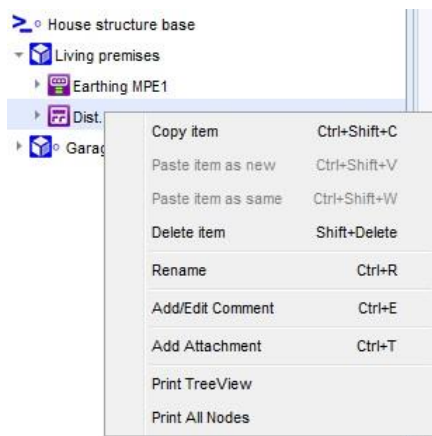
Measurements menu group

Measurements menu contain selection tools for attaching Single tests, Autosequence[®] tests and Inspections to the structure elements. Type of Measurements, appearing within each tool list, depends on Work scope setting.

- : Opens list of available single tests, select one by clicking on it name. It window appear on the screen, set parameters and limits and confirm. Single test is appended to the selected element within Structure tree.

- : Opens list of available Autosequence[®] tests, if Autosequence[®] Group file (*.atmpx) was opened before. Double-click on Autosequence[®] test append it to the selected element within Structure tree.
  Option:
  Browse for Group of Autotests file: Open browser to navigate to the Autosequence[®] Group file folder location; select one and confirm selection to open it. New Autosequence[®] Group file will replace existing. This menu is available by clicking on the triangle inside the button.
  Note: Only one Autosequence[®] Group file can be opened at the same time.

- : Opens list of available Inspections, select one by clicking on it name. It window appear on the screen, confirm selection. Inspection is appended to the selected element within Structure tree.

6.2.4 Database Tab

Frequently used data can be written to the organized tables provided in Database tab. This data can be appended to the Structure elements or to the Print results header (see Settings / Printout headers). Appearance of the Database tab menu (**Figure 6.10**) depends on the Work scope setting. It main arias are:

- Contacts
- Structure names
- Custom Lists (Under Safety of Electrical Equipment I / II Work scope only)
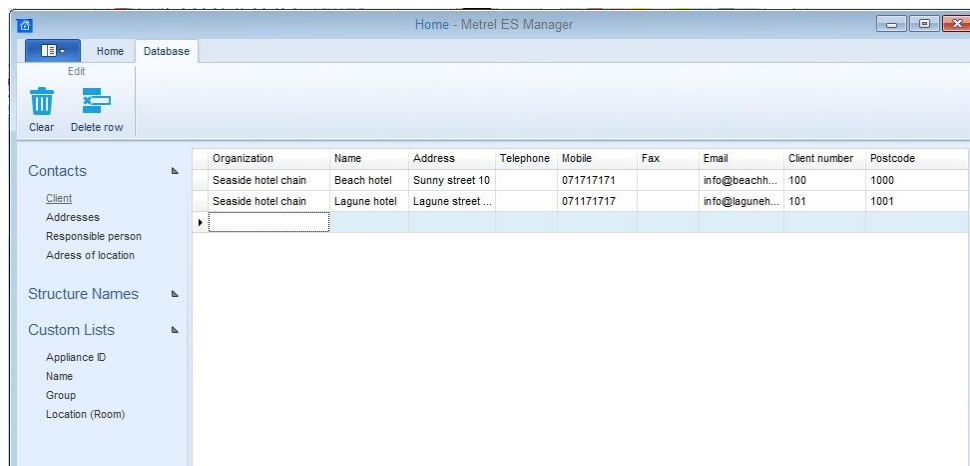
Figure 6.10: Database tab – Client list in Contacts group is selected

Contacts data lists

Organized tables are provided for custom Contacts data entry (Organization, Name, Address, Telephone, eMail etc.), which could be appended to the structure elements with simple selection from drop-down list. Common to all Work scope settings (and their utility purpose) are:

- Client (element Client / PAT testing, element Location / Installations testing)

- Addresses (element Location / Installations testing, Header of Print results)

- Responsible person (element Location / Installations testing, Header of Print results)

Additional for PAT testing only is:

- Address of location (element Location / PAT testing)

Edit menu options:

- **Clear** : Clear all data entry from selected Contacts list.

- **Delete row** : Delete selected row from the Contacts list

Structure Names data list

Structure names is fixed list of Elements, which could be used to build custom tree-like structure of the test object (**Figure 6.11**). User can customize the name of the Element under which it is presented within tree structure. Listed elements depends on Work scope setting.

Structure Names data columns are:

- **Picture**: graphic presentation of the element

- **Default name**: Metrel ES Manager Default Element name

- **Custom name**: User defined name of the element; select current Custom name and edit it.
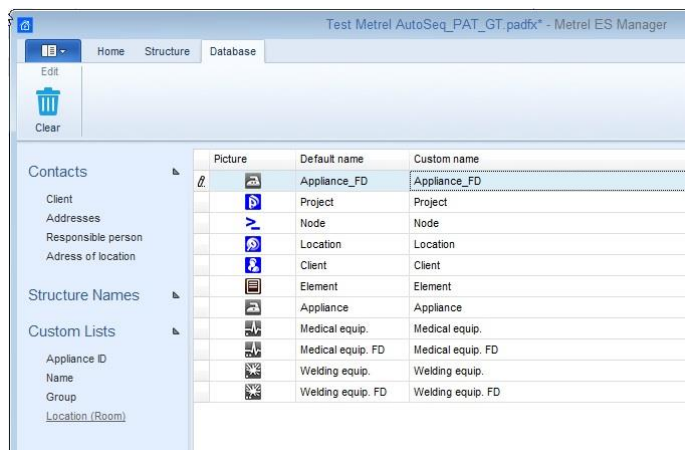
Figure 6.11: Structure Names

Edit options:

- 🗑 Clear : Structure Names list is set to default state. After Warning confirmation, all Custom names are reset to default names.

Note:

Custom name is always used to present Element within tree structure, when appended to the location. By default, Custom name is the same as Default name of the element.

Custom Lists

When Work scope is set to Safety of Electrical Equipment testing (PAT, Production Line), additional Custom data lists (**Figure 6.12**) are provided for entry of frequently used data of test objects, which could be appended to the structure elements presenting electrical equipment, with simple selection from drop-down list:

- **Appliance ID** (empty list by default)
- **Name**: name of electrical equipment (partially completed list by default, user can add new names)
- **Group**: name of equipment group (partially completed list by default, user can add new groups)
  - **Location (Room):** name of the space location (empty list by default)

Figure 6.12: Custom list Name

Edit menu options:

- [Clear icon] **Clear** : Selected list is restored to default state, custom entries are deleted.

- [Delete row icon] **Delete row** : Delete selected row from the list

6.3 Metrel ES Manager User workspace

User workspace is presented on the **Figure 6.13** below. Multiple Data structure files can be opened at the same time, independent of their Work scope setting. Their names are listed within Document tab-strip (❶), currently active Data structure file tab is highlighted.
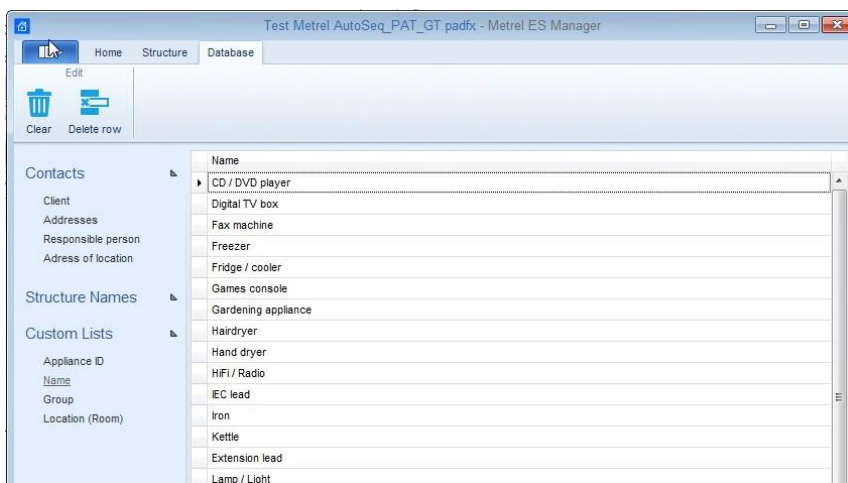
Data structure file content is presented in three main areas within user workspace, each providing special insight into the file data content, for easier navigation and data survey:
- **Tree View** window (❷)
- **Result view** area (❸),
- **Parameters** window (❹)
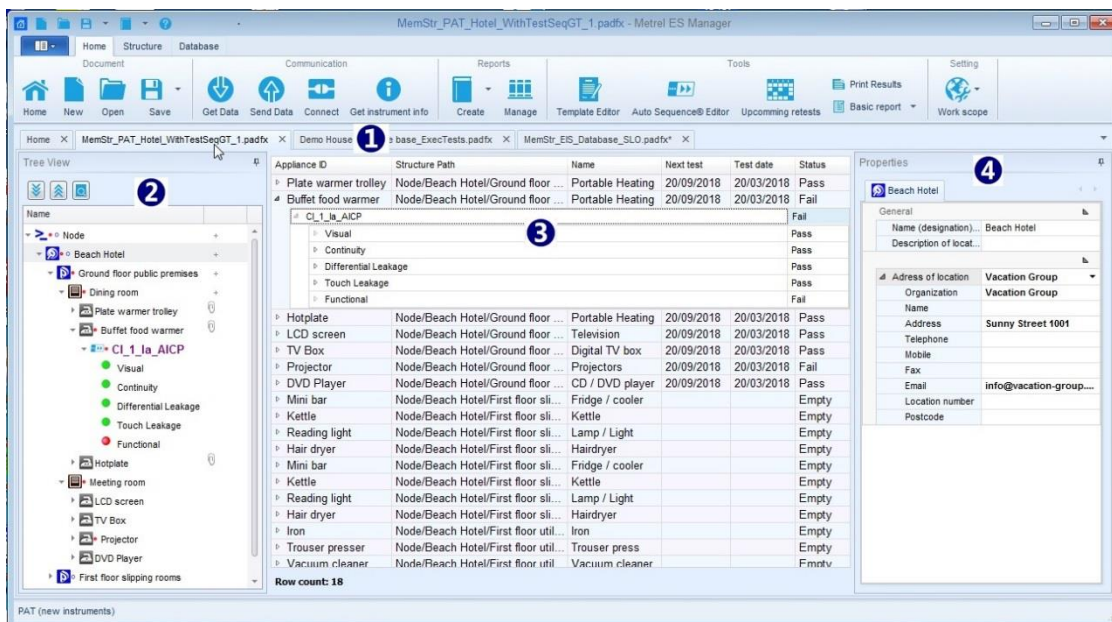
Figure 6.13: User workspace

6.3.1 User workspace management

Result view area is always in the centre of User workspace and act as container (parent) window to which Tree View window and Properties window are appended. When data structure file is opened or downloaded from the instrument, Tree View and Properties windows are docked on the left and right side.

User can manage appearance of workspace with:

- **Resize Tree view and Properties window width**: position mouse marker on window edge, when arrow ([double arrow icon]) appear, left click and drag it to the left or right.

- **Undock and Hide Tree view and Properties window**: apply left click on the pin button (⊞) located in the left top corner of the window to undock window. Narrow vertical strip with window name appear on the screen edge, Tree view strip on the left, Properties strip on the right side, see (❶) and (❷) on **Figure 6.14**. Consecutive clicks on window strip in the name area hide or unhide the window. To dock windows again, click on pin button (⊞).

- **Resize Result view columns**: position mouse marker on column left side edge in title bar, when arrow (⬍) appear, apply left click and drag it to the left or right.

Note:

Result view area is always expanded between Tree view and Properties window. If Tree view and Properties window are undocked, Result view area is expanded between Tree view and Properties vertical strips. When undocked window is not hidden, part of the Result view area is covered.
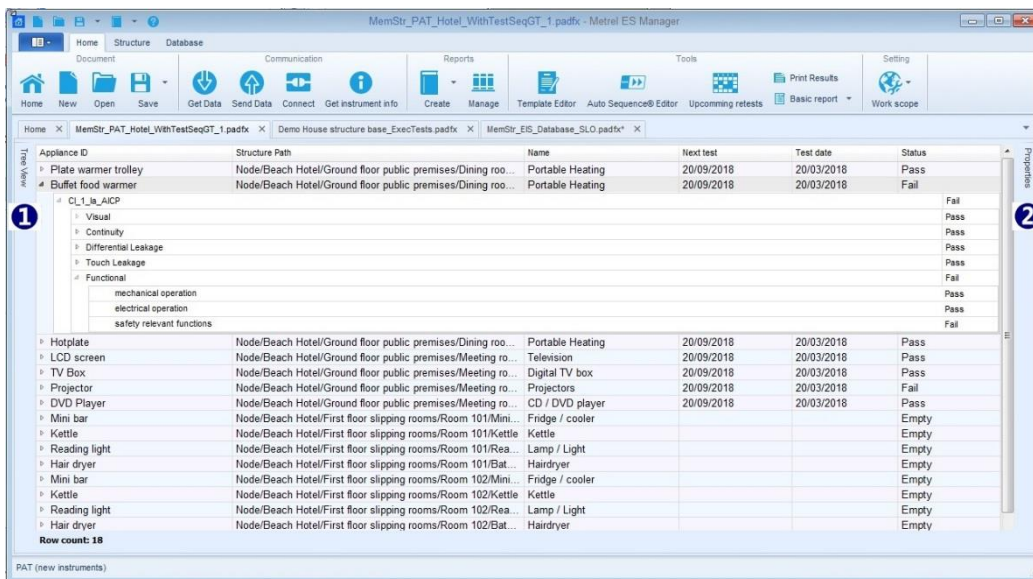
Figure 6.14: User workspace with undocked and hidden Tree view and Properties window

6.3.2 Tree View options

The tree view (**Figure 6.15**) allows you to navigate through the data structure and displays the status of the measurements performed on objects by adding measurement status symbols to object icons.

Use buttons under the title bar (❶) **to navigate:**

- ⟱: Expand all nodes of the data structure.

- ⟰: Collapse all nodes of the data structure

- 🔍: Opens Find panel (❷) to search for the text string entered to the field. All string appearances are highlighted within data structure tree.

Use triangle mark in front of the object to expand / collapse subtree nodes:

- ▸ 📄 : Structure object subtree is collapsed, click triangle mark to expand node.

- ▾ 📄 : Structure object subtree is expanded, click triangle mark to collapse node.

Right click on the structure element opens menu window (❸) with commands:

- **Copy, Paste as new, Paste as same, Delete, Rename** items are functions for manipulating data structure objects and measurements.

- **Add / Edit Comment**: Write short comment which appears as a string below selected object (❹).

- **Add Attachment**: Add attachment to the selected object. Notification (📎) appear in the attachment column of the data structure tree. Attachments can be any data (picture, text file, object, etc), can be opened, edited or removed. Click on notification to present list of object attachments.
  Note:
  Attachments are only stored on the current data structure file and will not be send to the instrument. When send data structure file with attachments to the instrument and then download back into new data structure file, attachments in new data structure file will be lost.

- **Print TreeView:** opens current Tree view (only selected nodes expanded) in Preview manager window. Preview contains all standard functions for editing printable files, it is possible to edit Header and Footer, set Background colour. Also you can Export edited document in .pdf format.

- **Print All Nodes:** expands all nodes and opens Tree view in Preview manager window.

- **Instrument data:** Data of the instrument with which measurement was performed. Available for finished measurements (single tests or Auto Sequence® tests) only.
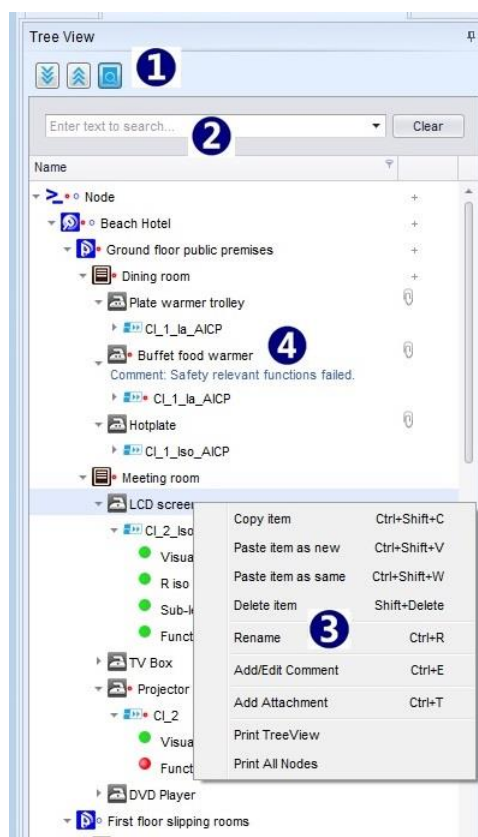

Figure 6.15: Tree View

Structure object test status indication

Autosequence® tests and other structure objects test status is indicated with dot following the icon:

- ▸ 🖴° : Empty status (not yet performed) measurement is associated with object; click to triangle in front to expand branch and view content of the measurement.

- ▸ 🖴• : Performed measurement with Fail status is associated with object; click to triangle in front to expand node and view individual test status.

- ▸ 🖴 : Performed measurement with Pass status has no special indication; click to triangle in front to expand node and view individual test status.

- 🖴 : Object without triangle mark in front has no measurements associated.

- ▾ 🅿• : At least one measurement within object subtree has Fail status.

- ▾ 🅿• ° There are measurements with Empty status and measurements with Fail status within object subtree.

Single test measurement status indication

Measurement status is indicated with circle in front of Single test name.

- 🟢 : Passed finished measurement with test results performed by the instrument.
- 🔴 : Failed finished measurement with test results performed by the instrument.
- 🔵 : Finished measurement with test results and no status performed by the instrument.
- ⭕ : Empty measurement without test results.
- 🟢 : Virtual - Passed finished measurement with manually added test results on PCSW.
- 🔴 : Virtual - Failed finished measurement with manually added test results on PCSW.
- 🔵 : Virtual - Finished measurement with manually added test results and no status on PCSW.

6.3.3 Results view area options

Results view area is intended for detail survey of measurements associated with data structure elements. Result view area appearance and options depends on Work scope setting. See chapter *6.3.3.1 Results view area for Appliance testing Work scope* for additional options.

Display of measurement data (**Figure 6.16**) is organized in table manner including:

- **Function path** - object directory within Tree structure and appended measurement name (❶). Left mouse click on triangle in the beginning of the row expand (▷) or collapse (◁) measurement data.

- **Measurement data** with Test name, Results, Sub-results, Parameters and Limits setting (❷).

- **Test status** column (❸).

- **Measurement test Date and Time** (❹).

Result view area is focused on selected object within Tree View; measurement results associated with subtree structure of selected object are presented.

Measurement data Filter: presentation can be filtered with selection from drop-down menu in upper right corner:
- Show all ▾: Results, Sub-results, Parameters and Limits setting are presented.
- Show results and subresults ▾ : only Results and Sub-results are presented.

Measurement status is written in status column:
- **Pass**: Passed finished measurement with test results.
- **Fail**: Failed finished measurement with test results.
- **Nothing**: Finished measurement with test results and no status.
- **Empty**: Empty measurement without test results.
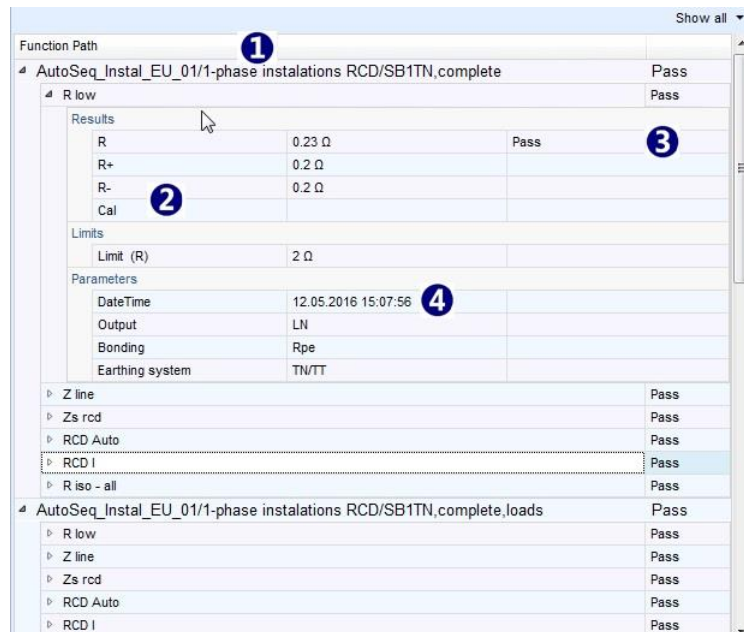
Figure 6.16: Results view area

Commands available with right click on Function path of the Structure Object are or on appended measurements:
- **Edit**: edit test parameters and limits of empty measurement
- **Print selected**: print Results of the selected Structure Object.
- **Print all**: print Results off all Structure Objects.
- **Expand all**: Expands all Function paths to see measurements data
- **Collapse all**: Collapse measurements data to see Function paths only.
- **Show graphs:** Opens window for graphic presentation of measurements results. Available for measurements which containing graphs.
  Note:
  Measurements with parameter sweep mode setting within Safety of HV installations Protective Earthing Work scope.

6.3.3.1 Results view area for Appliance testing Work scope

When Work scope is set to Appliance safety testing, Appliances table with extended information organized in additional table columns appear within Result view area (**Figure 6.17**):
- **Appliance ID**: identification of tested appliance.
- **Structure path**: Appliance directory within Data Structure tree.
- **Name**: Appliance name.
- **Next test**: Date of next test for Appliance with set Test period.
- **Test date:** Test Date from the instrument.
- **Status:** Test status

Appliances table is focused on selected object within Tree View; measurement results associated with appliances located within subtree structure of selected object are listed in the table.

Interactively, when left click is applied on Appliances table row within Result view area, adequate Tree view branch is expanded and selected item is highlighted.

Figure 6.17: Appliance safety testing Results view area appearance

Sort order filter

Each Appliances table column provide sort filter, activated with left click to the column name field. Active sort column (Test date ▾) is marked with arrow on the left side of the column name field. Click again to reverse sort order. Sort filter can be active in one column only at the same time.

Appliances table data filter (**Figure 6.18**)

Data filter can be active within any column of the Appliances table, one or more filters can be active at the same time. Right click within Appliances table offer menu window, from which two equivalent options for custom data filter design can be selected:

- ✓ Custom filter : Field for Custom filter design is opened at the top of Result view area (❶)

- ✓ Row filter : Custom filter design field is offered as a row beneath Address row of the Appliance table (❷).

- Set filter criteria is presented at the bottom of the filtered Appliance table (❸):

  Click on ☑ to Switch Off filter, click field again to switch it On.

  Click on ✕ to permanently delete filter.

- Custom filter and Row filter are equivalent, just setting fields and procedure are different, and user can select more convenient one, or both at the same time. Settings within Custom filter are mirrored to the Row filter and vice versa.
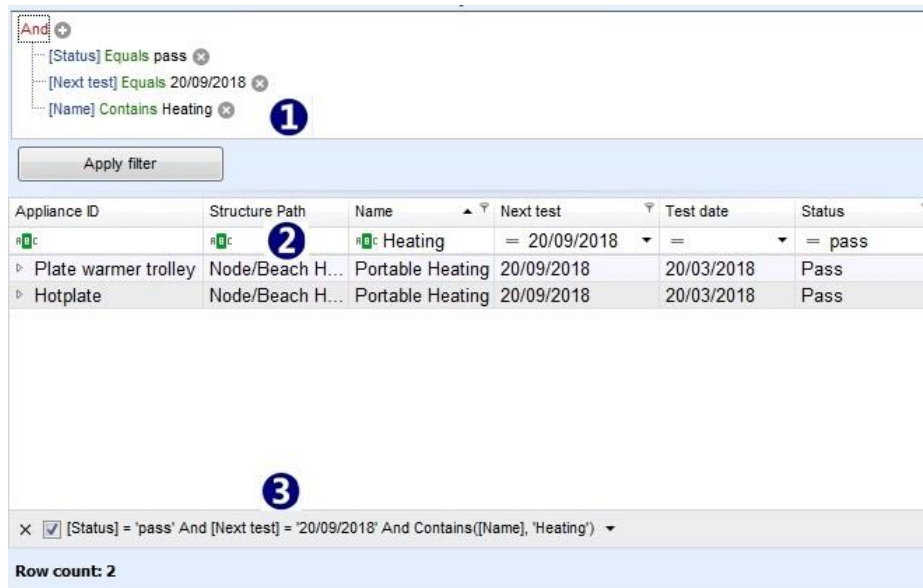
Figure 6.18: Appliance data filter design options

Appliances table Find filter

Right click within Appliances table offer menu window, from which Find panel can be selected:

- ☑ Find panel : Field for Find filter is opened at the top of Result view area (❶)
- (❷) Enter the string to be find within Appliances table; search start automatically.
- (❸) Find string appearance is highlighted and Appliances table is filtered to the rows containing find string.
- Clear : Remove find filter and clear entry field
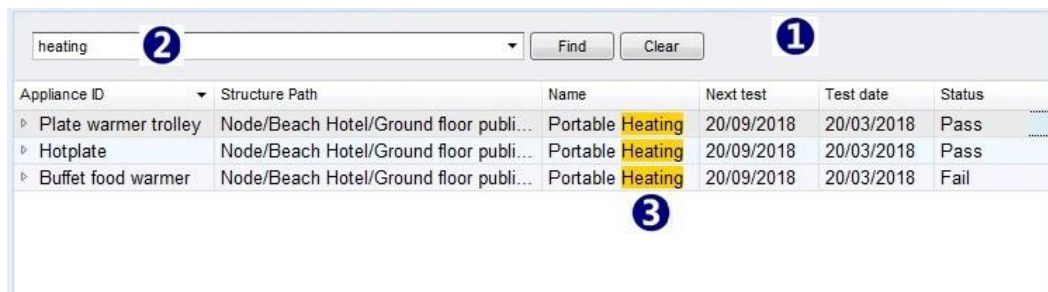
Figure 6.19: Appliance data Find filter design options

Appliances table commands

Right click within Appliances table offer menu window, from which commands can be selected:

- Clear filters : Clear all filters from Appliances table
- Delete item : Delete selected item
- Delete all : Delete all items from appliances table

6.3.4 Properties window options

Properties window presents description of objects allocated within Project Data Structure tree. Properties window appearance depends on Work scope setting and assigned properties to the object type.

Current Properties window view (**Figure 6.20**) is focused on the object selected in the Tree view:

- Selected object properties and properties of all parent objects within data structure are presented in separate tabs within Properties tab strip (❶). By default, selected object tab is active. Click on the parent object tab to see it properties. Use arrows at the end of the tab strip to scroll between tabs.
- List of assigned properties to the object is presented on the left side (❷). Click to the entry field on the right side and write the property value.
- When list of predefined properties is available, arrow appear at the end of entry field (❸). Click on arrow to open drop-down menu and select property value.
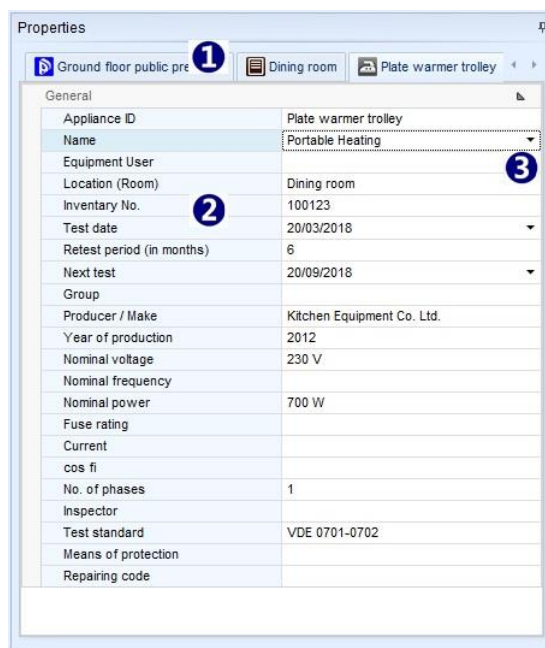
Figure 6.20: Properties window

7 Creating Data Structures

7.1 Considerations on new test project Data Structure

Metrel ES Manager supports creating a tree-like Data Structure of Test project, with Objects under test located on tree nodes in hierarchical relationship. Measurements can be appended to the Objects before uploading Data structure file to the instrument.

Before opening the new Data Structure file of Test project, consider on:
- **Work Scope**: Determine the Work scope of Test project.
- **Data structure tree**: Determine the Data structure of Test project - Test Objects and their hierarchical relationship within tree-like project presentation.
- **Data lists with Properties**: Consider on Test Objects properties to be described for consistent results presentation and Test report. Commonly used data can be saved to the Data lists within Database tab.
- **Autosequence® tests**: For faster test execution, collect specified tests for each individual object and create Autosequence® Group of tests. Autosequence® test can contain custom created Inspection tests. Refer to individual Instrument Instruction manual for details.

7.2 Open new test project Data Structure

To open new test project Data Structure file, follow the procedure:
- Optionally, set Document path from Main tab / Settings / General tab menu.
- Select Home tab of the User workspace.
- Select Settings / Work scope from Home menu tab.
- Chose New file from Home user workspace or Home tab (or Main tab).

New Data structure file *.padfx is opened, with default file name *New Document**. User Workspace area is empty, except parent object *Node* is automatically placed to the Tree view. This is the start point to create project Data Structure. It can not be deleted, because at least one *Node* must exist within structure tree. It can be renamed to reflect Test project subject.

It is recommended, before start to create Data structure, to:
- Rename the file using Save as command from Home tab menu, to reflect the Test project subject.
- Open adequate Autosequence® Group file containing required project tests, if available. Only one can be opened at the same time.

7.2.1 Creating new Data structure

Creation of the new Data structure starts from Tree view of the User workspace, **Figure 7.1** :
- Select Structure tab menu (❶). Available Objects are highlighted within Structure group menu.
- Default object Node is already selected within Tree view. Click on the Object within Structure menu group to insert it to the structure tree. It appears as a tree nodes (❷), hierarchically is a child object under parent Node. To place another tree node, repeat the action.
- To expand the node, select Object within Tree view and click on the new Object within Structure menu group. It appears as a child object under selected one. To further expand the node, select child object and repeat the action.

- To create node subtree, select node Object and repeat placing new objects as a child items on the same level (❸). Child items are new nodes of Object subtree.
- Describe the Objects in Properties window of User workspace (❹). When Name property is entered, default Object name within Tree view is automatically updated.
  Each Object type has dedicated set of properties, which could be manually entered or selected from the embedded or user created Database lists. Describe all the necessary properties to provide a detailed overview of the test results and well defined Test Reports.
- Repeat above actions until determined test project Data structure is finished and save the file.
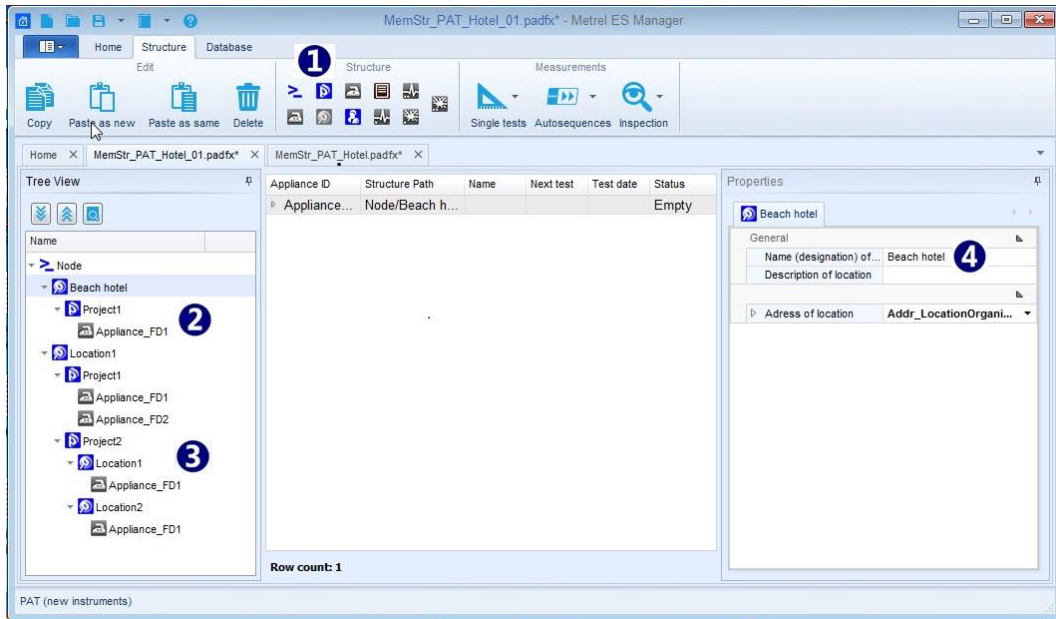
Figure 7.1: Creating new Data structure

7.2.2 Appending measurements to the Data structure Objects

Accurate and reliable test results are insured, when required measurements are parameterized and appended to the test objects before uploading test project Data structure to the instrument. Operator can start tests from instrument Memory organizer and save results under same Object location.

Procedure:
Select the test Object to which empty measurement should be appended. From Measurements group of Structure tab menu, user can select:

- Single tests : Click on icon opens list of available Single tests, organized in groups.
  - o Expand single test groups and select single test from the list by clicking on it name.
  - o Single test setting window appear on the screen, with default parameters and limits value setting.
  - o Set parameters and limits according to Test project requirements for selected object.
  - o Click OK to confirm settings, single test is appended to the selected Object.
  - o Parameters and limits can be reviewed and set again later; click on Single test name within Tree view present it content in Result view; double click on it name in Result view opens Single test setting window (❹) on **Figure 7.2**.
  - o Reset parameters and limits and confirm new setting with click on OK field.

-

  Autosequences: **Option command:**

  Click on icon opens list of available Autosequence® tests from opened Autosequence® Group.

  - ○ Expand file folders to find requested Autosequence® test.

  - ○ Double-click on Autosequence® test automatically append it to the selected object.

  - ○ If necessary, parameters and limits of Autosequence® test can be reviewed and set later, **Figure 7.2**; expand Autosequence® test node in Tree view (❶) to see it single test content.

  - ○ Select Single test in Tree view (❷) to present it content in Result view area.

  - ○ Double click on Single test name in Result view (❸) to open it settings window (❹).

  - ○ Reset parameters and limits and confirm new setting with click on OK field.

  - ○ **Note**: Autosequence® test with changed parameters and limits setting is not marked. To distinguish it from original, user can add a comment to it Name in Tree view.
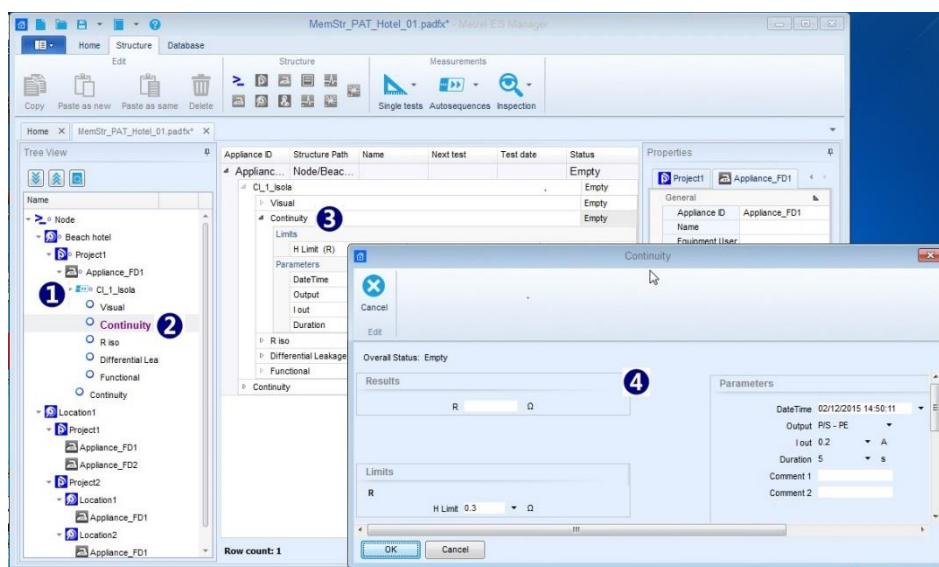
Figure 7.2: Edit Autosequence® test parameters and limits

-

  Autosequences**: Option command**: **Browse for Group of Autotests file**:

  Click on triangle offers command to open browser to navigate to the Autosequence® Group file folder location containing requested Autosequence® test; select file and confirm selection to open it. New Autosequence® Group file will replace existing, only one can be opened at the same time.

-

  Inspection : Click on icon opens list of available standardized Inspections, organized in groups.

  - ○ Expand Inspection group and select Inspection from the list by clicking on it name.
  - ○ Inspection window appear on the screen, with default Empty status of inspection items.
  - ○ Click OK to confirm, Inspection is appended to the selected Object.

7.3 Creating Data structure using Copy and Paste commands

With help of Copy and Paste commands, if part of the Data structure is often repeated, it is possible to create large structures with measurements in a fast and simple way.

Same Work scope setting allows, that Objects from one Data structure can be copied to another test project Data structure file. Data structures can be new, without measurements, with appended empty measurements or downloaded from instruments with executed measurements.

Note item identification rule, influencing paste commands behaviour:

Each Object and measurement inserted to the data structure got internal unique identification. Only one item with same unique identification can exist within same Data structure.

Commands are available from menu window, appearing on the screen after right-click on the Object within Tree view or from Structure tab Edit menu:

- **Copy command:**
    o Selected Object and all Objects located within selected Object subtree structure are copied.
    o Measurements appended to the Objects, empty or executed, are also copied.
    o Properties of each copied Object are also copied.
- **Paste as new:**
    o Copied Object and all Objects located within it subtree are pasted to new selected location.
    o Empty measurements appended to the objects are also pasted and remains unchanged.
    o Executed measurements are pasted as empty measurements!
    o All pasted Objects and Measurements got new internal unique identification!
    o Properties of each Object are pasted and remains unchanged!
- **Paste as same:**
    o Copied Object and all Objects located within it subtree are pasted to new selected location.
    o Measurements appended to the Objects, empty or executed remains unchanged.
    o All pasted Objects and Measurements remains same internal unique identification!
    o Properties of each Object are pasted and remains unchanged!

Note:

When Paste commands are dimmed, pasting data to the selected location is not allowed due to hierarchical relationship between copied object and paste object or no data was copied before.

7.3.1 Copy and Paste within same Data structure file

Copy&Paste as new: a structure Object with sub-tree Objects **with empty measurements or without them**:

Commands sequence is useful to expand Data structure with often repeated common nodes, like Hotel with multiple floors, each containing equally equipped rooms (**Figure 7.3**):

- Select Object presenting node (❶) (First floor) and execute Copy command
- Select new location Object (❷) (Hotel) and execute Paste as new command; repeat for each new node
    o Paste as new was repeated twice (❸), presenting two new nodes – hotel floors.
    o All objects within pasted nodes has new unique identifications, but it names and Properties and appended measurements remains the same.
- Select each new object within new nodes and update only their Properties (❹), which distinguish them from copied node objects.
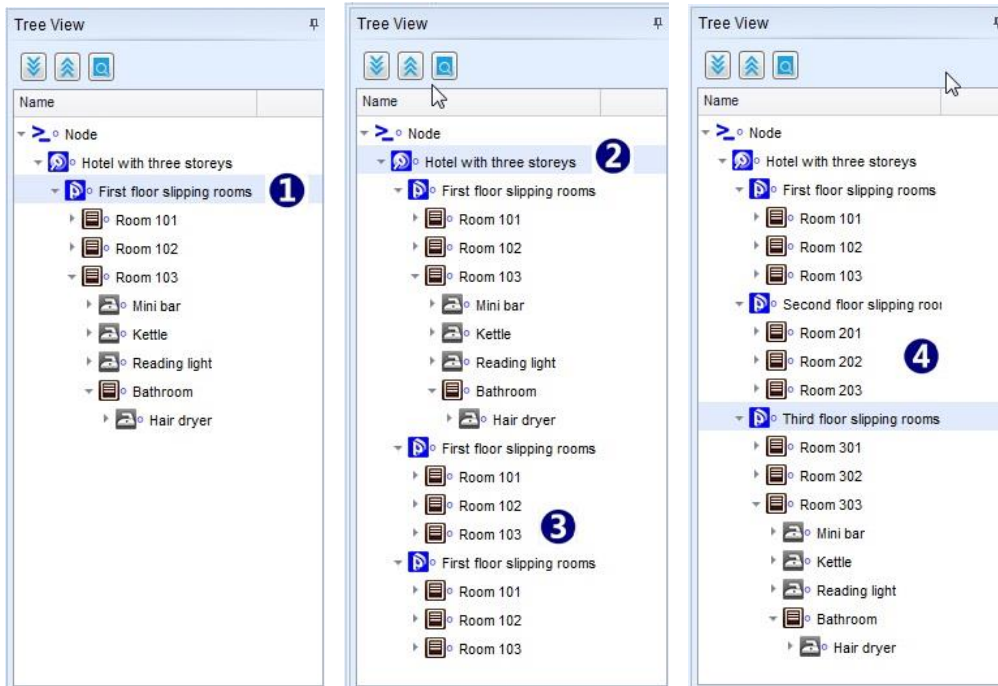
Figure 7.3: Copy&Paste as new operation within same Data structure - empty measurements appended

Copy&Paste as new: a structure Object with sub-tree Objects **with finished measurements**:

Commands sequence is useful to create **new Data structure** with **same Objects and their Properties** and appended **same empty measurements** as source Data structure with finished measurements, to perform same test project again on same or another equal location (**Figure 7.4**):

- Select most parent Object in presenting data structure with finished measurements (❶) and execute Copy command.
- Select new location (new Node was inserted for demo) (❷) and execute Paste as new command:
  - Pasted Data structure tree and Object properties remains the same, all objects has new internal unique identifications to distinguish them from source Objects.
  - All appended measurements are empty (❸), without results, parameters and limits settings remains the same as they was set in finished measurements.
    All measurements has new internal unique identification.
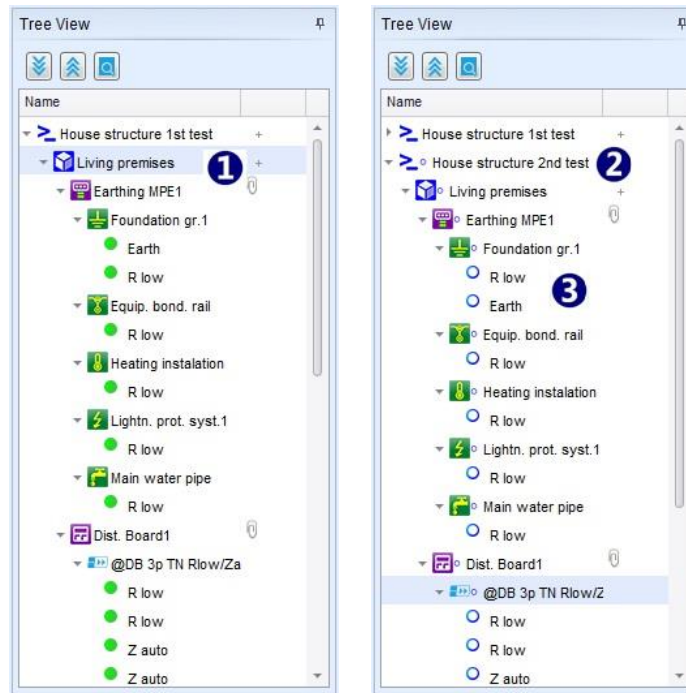
Figure 7.4: Copy&Paste as new operation within same Data structure - finished measurements with results

Copy&Paste as same:

Internal unique identification rule prevent *Paste as same* command execution within same Data structure file. *Paste as same* command is executed as *Paste as new,* Information message (**Figure 7.5**) appear on the screen for a short time.
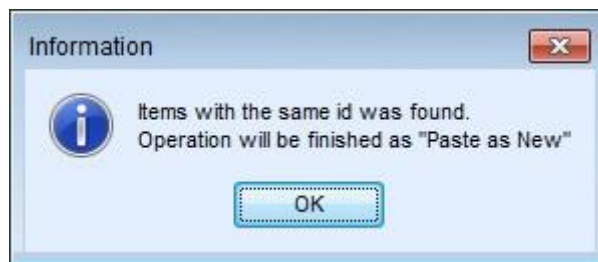
Figure 7.5: Copy&Paste as same within same Data structure – information message

7.3.2 Copy and Paste between different Data structure files

Source Data structure file and Target Data structure file should be opened at the same time, same Work scope must be set for Source and Target Data structure.

Copy&Paste command sequence execution always begin with same procedure:
- Select Source Data structure file tab to become active within User work space
- Select most parent Object within Tree View, which subtree structure should be copied end execute **Copy** command.

Paste as new:
- Select Target Data structure file tab to become active within User work space
- Select parent Object in Tree view within Target Data structure and execute **Paste as new** command
  - o Pasted Data structure tree and Objects properties remains the same as Source, all objects has new internal unique identifications to distinguish them from Source Objects.
  - o All appended measurements, empty or with results from Source file, are empty, without results, parameters and limits settings remains the same as they was set in Source file. All measurements has new internal unique identification.

Execution of Copy and Paste as new commands sequence between different Data structure files have similar behaviour and usefulness as execution within same Data structure file, except that Source data are not present in Target Data structure file. For use cases refer to chapter **7.3.1 Copy and Paste within same Data structure file.**

Paste as same:
Command response depends on Measurements status, which are appended to Source Data structure and on internal Objects and measurements unique identification within Target Data structure.

Paste as same: Source Data structure **Objects with** appended **Empty Measurements** (or without):
- Select Target Data structure file tab to become active within User work space
- Select parent Object in Tree view within Target Data structure and execute **Paste as same** command
  - o Search for internal unique Object and Measurements identification within Target Data structure and comparison with Source Data structure automatically start.
- **Equal unique identifications** was found: Merge confirmation information window **Figure 7.6** appear on the screen:
  - o click OK to complete Paste command with data merging after confirmation in next step. Objects and Measurements keeps internal unique identification.
  - o click Cancel to stop command execution, data will not be pasted.
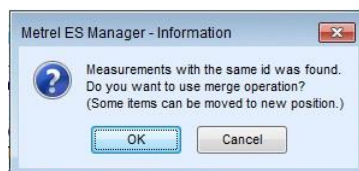

Figure 7.6: Merge confirmation information window

- **No equal unique identifications**: procedure continue with confirmation window, **Figure 7.7**
  - o click **Yes** to complete Paste command. Objects and Measurements keeps internal unique identification.
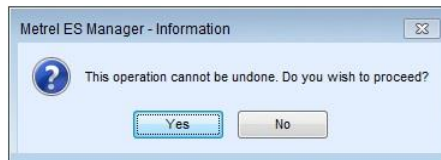 - o click **No** to stop command execution, data will not be pasted.

Figure 7.7: Paste as same confirmation information window

Paste as same: Source Data structure **Objects with** appended **Finished Measurements,** Target Data structure has empty measurements or finished measurements executed with different instruments:
- **No equal Object unique identifications within Source and target Data structures**:
    o procedure is the same as described above.
- **Equal Object unique identifications within Source and target Data structures**:
    o procedure starts the same as described above until Merge confirmation step.

Paste as same: Source Data structure **Objects only,** Target Data structure
- User is prompted to select next Paste command step, **Figure 7.8**:
    o **Merge duplicates using source data**: Target Data structure Objects with equal identification are updated with source data, rest of them are pasted as same as source data.
    o **Relocate structure**: source data will be pasted to Target Data structure as additional node subtree. New objects has new internal unique identification.
- Conclude paste command with response to Information message on the screen, already described above.

Figure 7.8: Paste as same confirmation information window

Merge: Case study example of functionality:

Hotel with multiple rooms and floors – Test report for a hotel is needed.

Complete structure and measurements of a hotel is uploaded on multiple instruments. Each tester measures one floor only. Data from all instruments are downloaded to the Metrel ES Manager.

Test report, if created now from individual Data structure file, will include complete structure but only single floor measurements, which is not what is needed.

Using Merge function, all downloaded Data structure files from different instruments can be merged into a single Data structure file containing complete structure and complete measurements. Complete Test project Report can now be created.

Relocate: Case study example of functionality:

Hotel with multiple rooms in multiple equal floors – Test report for a hotel is needed.

Same Data structure, covering only a single hotel floor and measurements is uploaded on multiple instruments. Each tester measures one floor only. Data from all instruments are downloaded to the Metrel ES Manager.

Test report, if created now from individual Data structure file, will include only single floor measurements, which is not what is needed.

Using Relocate function, data from all floors can be combined into a single document file. Complete test report can now be created.

Merge functionality note:

Source Data structure **Objects** with appended **Empty Measurements, Target** Data structure **Objects** with appended **Finished measurements:**

- o Merged Data structure and Objects remains the same, Empty Measurements are appended to adequate Structure Objects in addition to unchanged Finished Measurements.

7.3.3 Copy and Paste between different Work scopes

Data structures created in different Work scopes can be opened in User workspace at the same time. In general, content of Data structure can not be copied to Data structure created in another Work scope. However, there are exceptions for some structure objects, that are common within different Work scopes. For example, structure objects as Appliance, Appliance FD, Machine with sub objects, EVSE with sub objects are common within different Work scopes and can be copied and pasted between Data structures created in different work scopes.

Whenever Structure objects can be transferred between the Data structures of different Work scopes, this automatically means that all measurements can be transfered between the same Data structures too. Sharing of data between Data structures with different Work scope is subjected to changes as the Work scopes are permanently improved. For the latest information please refer to your distributor.

7.4 Creating Appliance periodic retest Data structure

When tested Appliances have set Property Retest period, and Data structure files with finished measurements already exists, Upcoming retests tool can be used to create Retest project Data structure file.

- Set Document path (see Chapter 6.2.1.1 Settings Menu), where Data structure files are saved.

- Set PAT safety testing Work scope from Home tab Settings menu, Upcoming retest editor icon appear within Home tab Tools group menu.

- : Click on icon opens Scheduled retests editor menu window for editing Scheduled retests for appliance testing.

    - o Scheduled retest editor will automatically search for appliances within **all Data structure files** saved in the set folder location.

- **Scheduled retests editor Options (Figure 7.9):**

    - o **Filter retest dates:** Set date period within which automatic search for appliance for retest is performed.

    - o **Reload**: Reload Scheduled retest appliance list.

    - o **Create .padfx file**: Create new Data structure file containing selected appliances with finished and new empty tests to be performed, located within same structure elements as within downloaded Data Structure file saved in searched file folder. Use shift+click, ctrl+click, click&drag within selection column on the left for multiple appliances selection. Only one new Data structure file is created, with multiple nodes, when selected appliances belongs to more than one Data structure file.

- o **Open selected file:** Opens Data structure file associated with selected appliances. Multiple Data structure files could be opened, if selected appliances belongs to more than one Data structure file.

- o **Close:** Close the Scheduled retests editor.

- o **Print preview:** Opens Scheduled retests list in Preview window, from which page layout could be edited before printing or exporting to pdf or image file.

- o **Print:** Direct printing of Scheduled retests list.

- o **to PDF:** Create Scheduled retests list in pdf format; user is prompted to select folder and file name
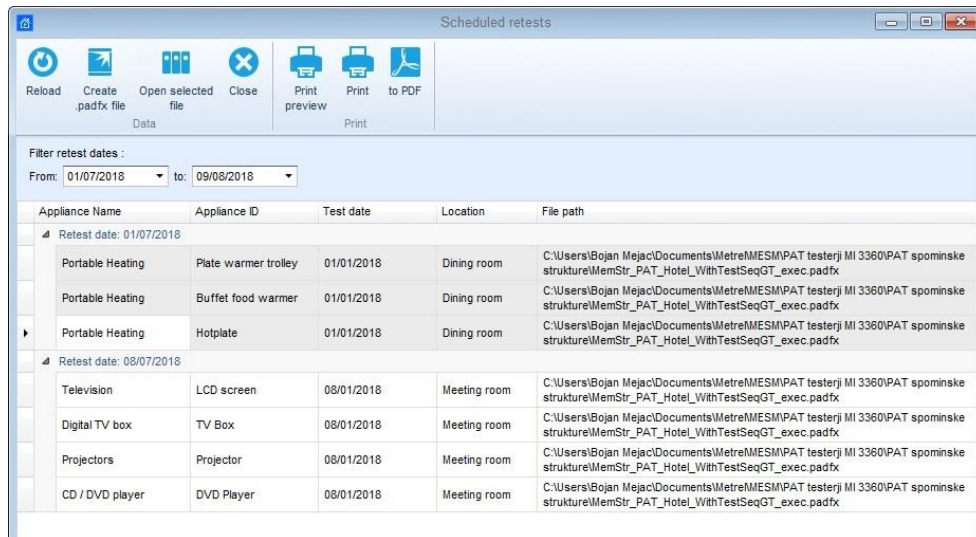
Figure 7.9: Scheduled retests editor menu

- From scheduled retest appliance list select Appliances to be retested and execute **Create .padfx file**:
  - o Retest Data structure file is opened in new User workspace tab (❶) with given default name New document.
  - o Appliances are presented in same Tree view Data structure (❷), with same Objects Properties (❸) as it was in source Data structure, beside previous Finished Measurement same Empty Measurement is appended (❷).
  - o In Result view area, previous Finished Measurement results can be reviewed and new Empty Measurement parameters and limits can be edited (❹).

- Use Saves As command option to give Retest project name to the new Data structure file.

- Scheduler retest window automatically updates the list of appliances when measurements was performed on the instrument and downloaded back to Metrel ES Manager.
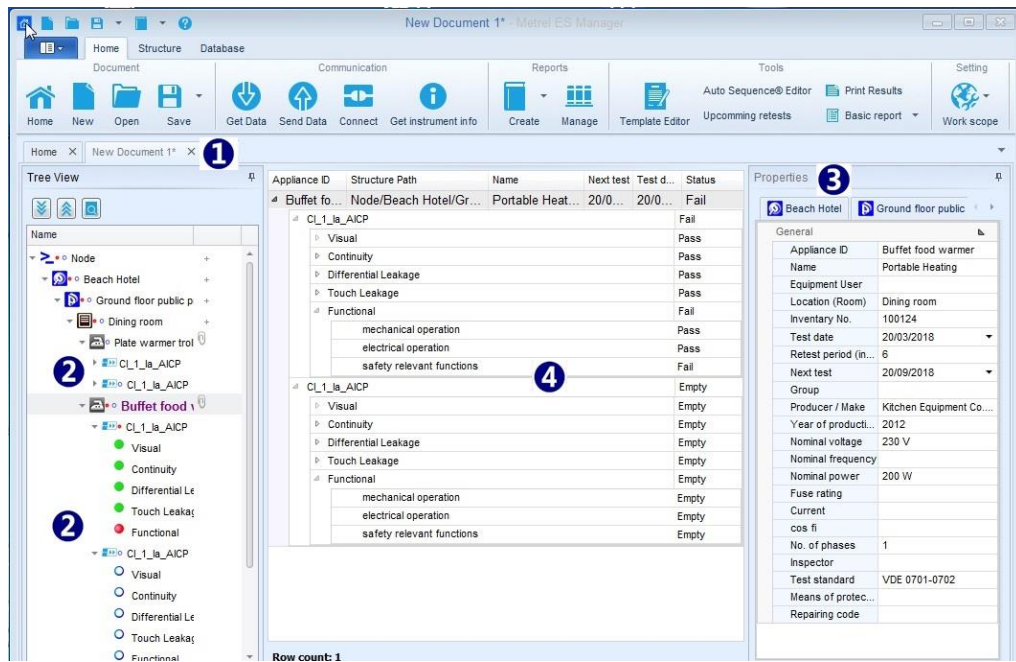
Figure 7.10: New Retest Data structure file

8 Communication with Instruments

8.1 Establishing communication with instruments

Communication with instruments is established via RS-232 port, or USB port.

- Click on Get Data , Send Data or Get instrument info opens dialog box for setting parameters of communication.
- From drop-down list select COM port, to which instrument is connected.
- Default Baud rate is set to Auto, switch to Advanced tab to change it, if necessary.

Figure 8.1: Setting communication

8.1.1 Instrument info

Basic information of the instrument (Name, Manufacturer, Type of instrument, Serial number, HW version, FW version, Calibration date, etc.) and Firmware update status can be obtained. If no data is displayed, see chapter Troubleshooting.
Options:

- Check for new updates: Check if new FW version exist
    - Download: Download new instrument FW version
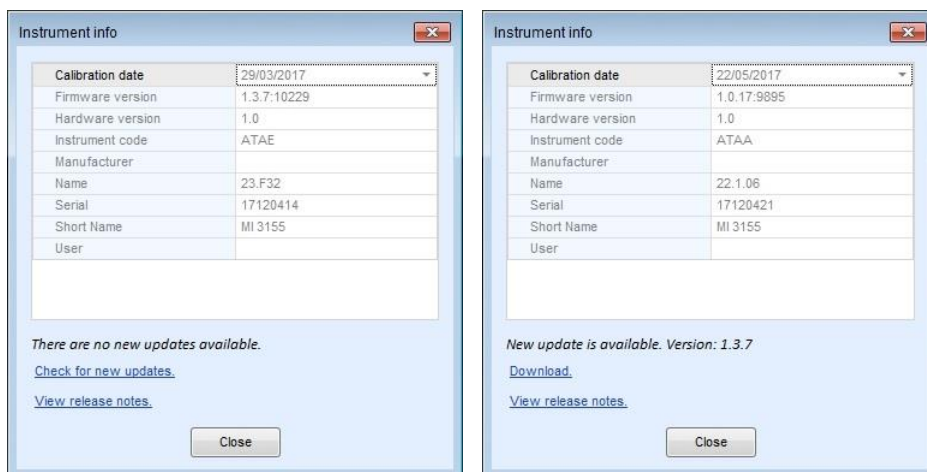- View release notes: Open release notes related to instrument type

Figure 8.2: Instrument info screen options

8.1.2 Upgrading the Firmware

With new type of instruments there is a possibility within Metrel ES Manager to upgrade firmware of your instrument with the latest version. Internet connection is needed. On the Instrument info screen click on Download and follow the instructions. Program (FlashMe) will start, which will guide you through the upgrade procedure. For more information if this feature is supported for your instrument see instrument Instruction manual or contact your dealer.

Note

For detailed set up procedure please see the user manual of the attached instrument on your computer! User manuals can be downloaded from our Download centre [http://www.metrel.si /download-center.html].

8.2 Upload or download Project files

Upload or download of Data structure project files can be selected from Communication group of Home tab menu. Single file and multiple file transfer is supported.

8.2.1 Single file transfer options

- **Get Data**: Gets data from instrument. Currently active Data structure file in instrument Memory Organizer is downloaded.

  o If only Home tab of User workspace is active, downloaded file is opened in new User workspace tab

  o If Data structure file is already opened within User workspace, Download options selection box is opened, **Figure 8.3**:
  Download to New file: new Data structure tab is opened in User workspace
  Download to Current opened File: Objects data with equal unique identification are merged, rest of them appear as new within active Data structure file.
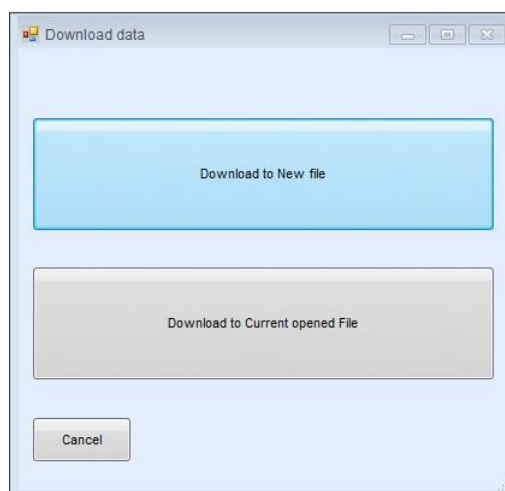

Figure 8.3: Download options selection box

- Send Data: Upload Active Data structure file to the instrument, after licence key and instrument profile is checked for enough privileges.

8.2.2 Multiple file transfer options

- Connect : Opens menu window (**Figure 8.4**) for managing transfer of group of Data Structure files between connected instrument and PC.

- **Data file list tab options**:
  - Project list | Lists the projects data files stored on the instrument
  - Upload projects   Lists the projects stored in the selected folder on the PC
  - Licenses   Lists the Licence keys stored on the instrument
  - Instrument info   Lists the connected instrument info

- **Command options**:
  - Reload   Reload the data
  - Download selected   Download selected Project data files from the instrument
  - Delete selected   Delete selected Project data files from the instrument
  - Upload selected   Upload selected Project data files to the instrument
  - Port   Select PC data port from the list, to which instrument is connected
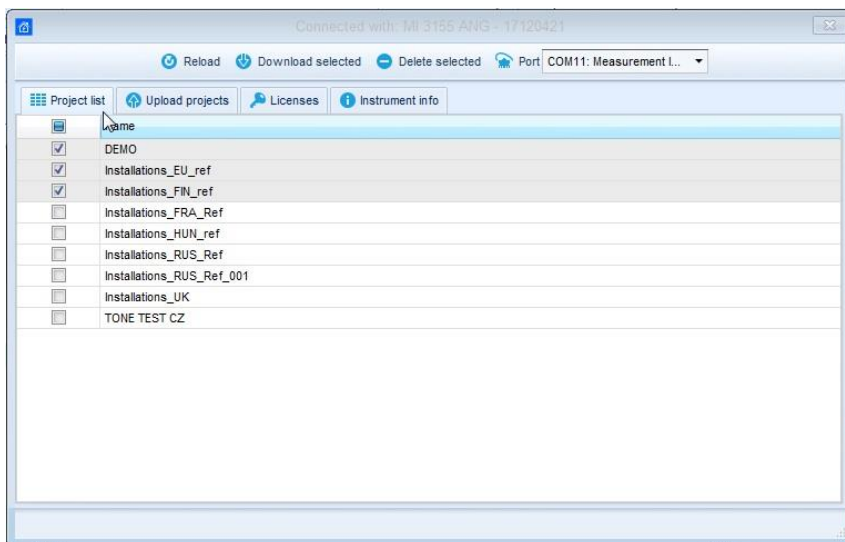

Figure 8.4: Connect window menu

9 Printing results

9.1 Printing results options

Metrel ES Manager provides two simple print formats for Test project Results printout, available from Tools group of Home tab menu:

- Print results
- Basic report with option Filtered basic report

Before start creating Test project Results, consider to prepare:

- Data base Addresses list – frequently used Customer data printed in Results header
- Data base Responsible person list –frequently used Operator data printed in Results header

9.1.1 Print results format

Create Header of Test project Results document first:

- Select Printout header tab of Settings menu from Main tab menu list
- Select Printout results tab (**Figure 9.1**) to open Header setup options:
    - o **Change logo image**: Opens browser to navigate to logos image folder; select and Open it.
    - o **Clear logo image**: Delete existing logo.
    - o **Field 1**: Manually type Customer data or select it from drop down list; Addresses list from Database is offered.
    - o **Field 2**: Manually type the Responsible person name or select it from drop down list; Responsible person list from Database is offered.
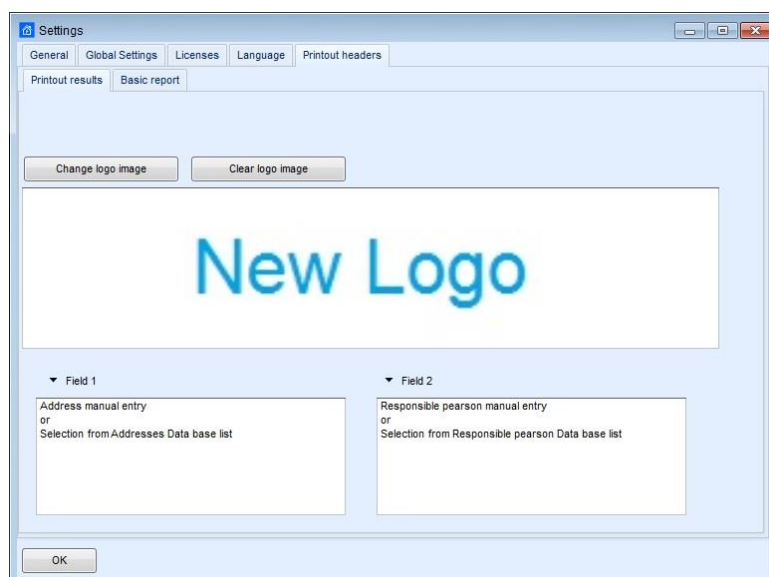

Figure 9.1: Print results Header setup

- Open test project Data structure file and within Tree view select most parent Object, for which data structure subtree Test project Results document should be generated. Select Node to print all results, select Measurement to print results of only one test.

- Click on ▤ Print Results within Tools group of Home menu tab opens Test project Results document in Preview manager window, **Figure 9.2**.
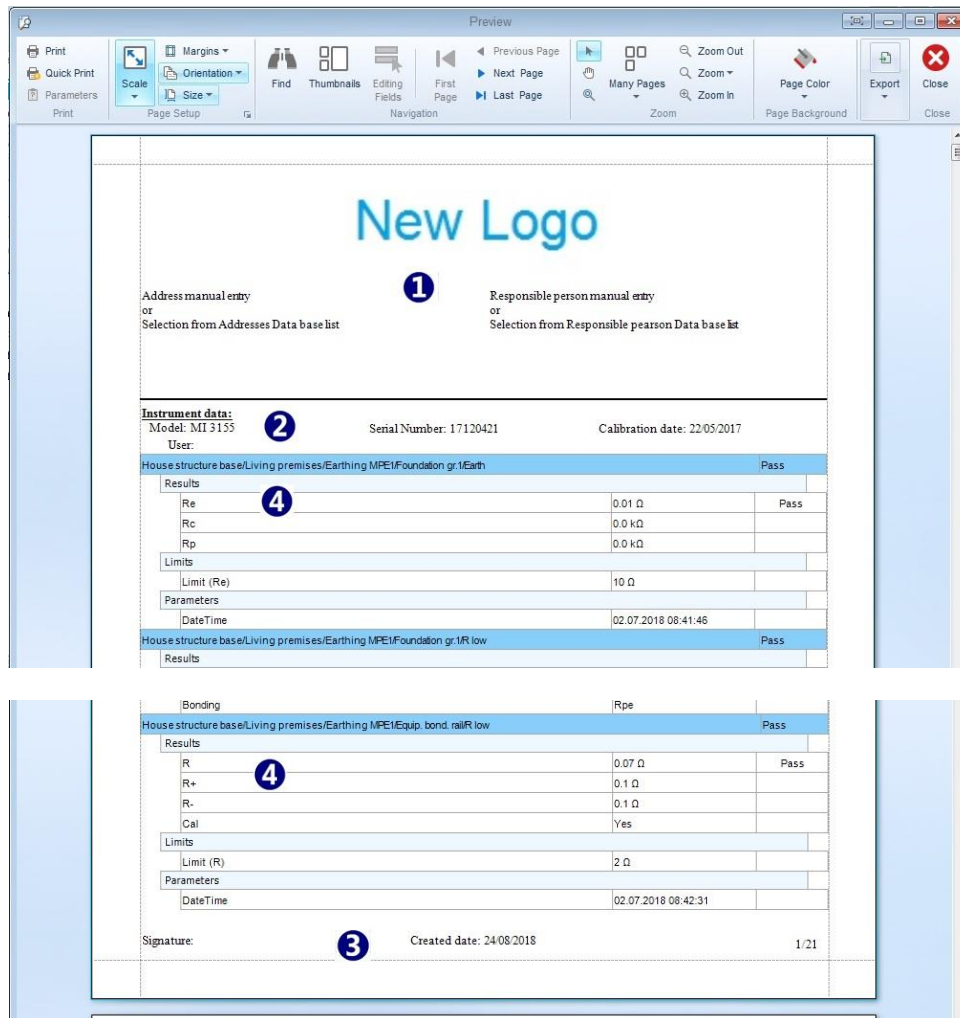

Figure 9.2: Print Results document format preview

- **Header** of Test project Results document appear on the top of the first page:
  - Test site, Operator data and Logo (❶) are as set in Printout results tab of Settings menu.
- **Instrument data** (❷) was set automatically when Data structure file was downloaded.
- **Footer** of Test project Results document (❸) appear on the bottom of each page and contain:
  - Signature field – entry by hand
  - Created date is set automatically
  - Page numbering is set automatically.
  - **Measurement Results** with Parameters and Limits are presented in table (❹), equipped with individual test result status, each table starts with Measurement path within Data structure tree and overall status indication.
- **Edit** Results document page layout and print it using Preview manager commands.

NOTE:

Preview manager, beside page editing and navigation commands, provide Export group with options:

- Export to PDF file: Create file to save document in PDF format.

- Export to Image file: Create file to save document in image file format (selectable from menu).

- E-Mail as PDF file: Create file in PDF format and attach it to E-Mail message.

- E-Mail as Image file: Create file in image file format and attach it to E-Mail message.

9.1.2 Basic report format

Options available from Tools group of Home menu tab are:

- ![Basic report icon] click on icon: **Basic report**

- ![Basic report icon] click on arrow: **Filtered Basic report**

9.1.2.1 Creating Basic report

Select Logo images to be printed in Basic report document Header first:

- Select Printout header tab of Settings menu from Main tab menu list

- Select Basic report tab (**Figure 9.3)** to open Logo setup options:

  o **Browse**: Opens browser to navigate to the logos image folder; select one and Open it.

  o **Clear logo image**: Delete existing logo.

  o **Logo 1**: Upper logo on Header right side.

  o **Logo 2**: Bottom logo on Header right side.

  o **Number of printed characters**: Specify the number of characters for the name of the measurement, printed on the report. Setting to -1 allows all characters printing for the name of the measurement.

- Open test project Data structure file and within Tree view select most parent Object, for which data structure subtree Test project Basic report document should be generated. Select Node to print all results, select Measurement to print results of only one test.
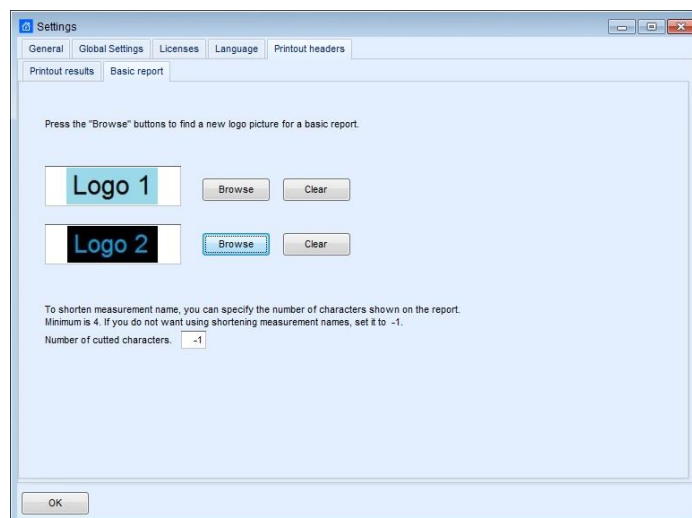

Figure 9.3: Basic report header logo setup

- Click on ☰ Basic report ▾ within Tools group of Home menu tab opens Test project Basic report document in Preview manager window, **Figure 9.4**.

- ☰ **Editing fields**: Header and Footer of Test project Basic report document has user editable fields, click on icon in Navigation command group of Preview manager to highlight them.

- **Header** of Test project Basic report document (❶) appear on the top of each page:
  - o Logo 1 and Logo 2 are as set in Basic report tab of Settings menu.
  - o Editable fields (highlighted pastel blue) should be entered manually.

  - • Complete **Instrument data** (❷) appear on the beginning of Results list on first page only, was set automatically when Data structure file was downloaded.

- **Footer** of Test project Basic report document (❸) appear on the bottom of each page and contain:
  - o Signature field – entry by hand
  - o Page numbering is set automatically.
  - o Editable fields (highlighted pastel blue) should be entered manually, including Date field.

  - • **Results** (❹) are presented in two table rows:
    - o First row begins with Object icon, following with Object location path within Data structure and instrument serial number.
    - o Second row begins with Measurement description, test date, overall status, than results, parameters, limits of each individual test are presented one by one in a string.

- **Edit** Results document page layout and print it using Preview manager commands.
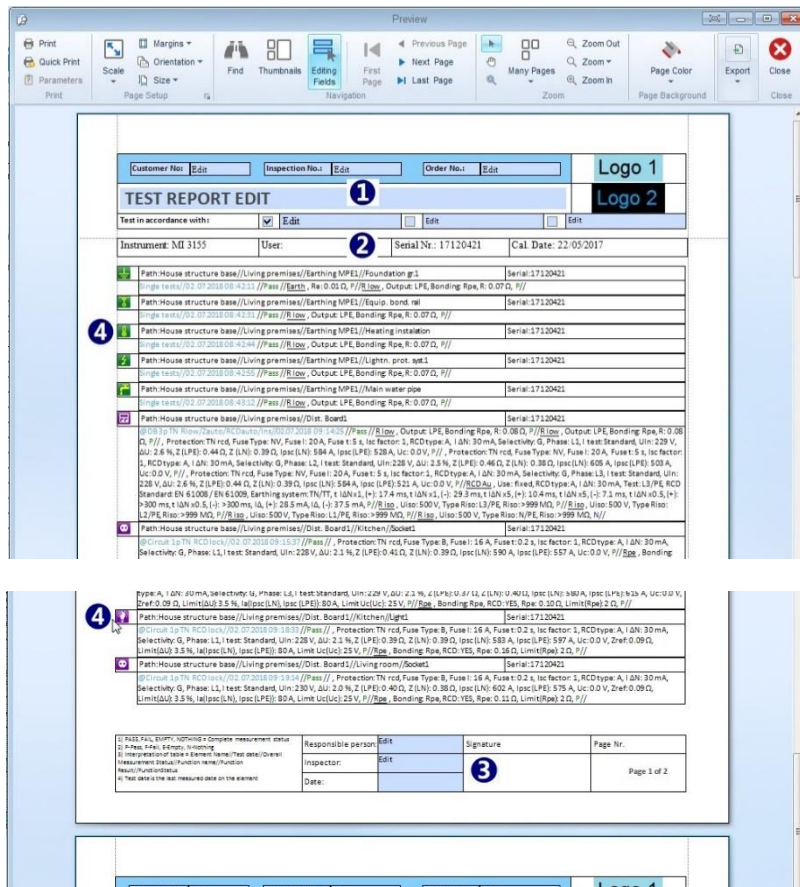

Figure 9.4: Basic report document format preview

NOTE:
Preview manager, beside page editing and navigation commands, provide Export group with options:
- Export to PDF file: Create file to save document in PDF format.
- Export to Image file: Create file to save document in image file format (selectable from menu).
- E-Mail as PDF file: Create file in PDF format and attach it to E-Mail message.
- E-Mail as Image file: Create file in image file format and attach it to E-Mail message.

9.1.2.2 Creating Filtered Basic report

Procedure of creating Filtered Basic report is same as creating Basic report, except that Filter options (**Figure 9.5**) should be set. Filter setting window appear on the screen after Filtered Basic report command is selected:

- **Use data from / to**: set range of dates (❶), within which Measurements included in report was executed.

- **Include Sub results**: by default, Measurement Sub results are not presented in Filtered Basic report format; click check box (❷) to include them.

- **Include Limits**: by default, Measurement Limits are not presented in Filtered Basic report format; click check box (❸) to include them. By including the Limits, include Sub results is set by default.

- Confirm setting to open Test project Filtered Basic report document in Preview manager window.
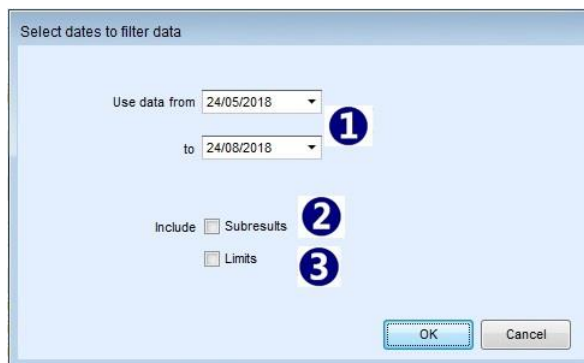

Figure 9.5: Setting window of Filtered Basic report

10 Creating Reports

10.1 Creating Reports

Metrel ES Manager supports comprehensive test reports that consist of inspection pages and test result pages. Reports are Data structure forms, based on predefined templates according to national standards or the rules of regulatory organisations. They are saved in /reports subdirectory of Data structure file. Printing and pdf creating functionality of the Reports depends on the instrument licence key rights, with which tests were carried out; if insufficient, Report is marked with (DEMO REPORT) in it name extension, see **Figure 10.1**.

10.1.1 Creating new Reports Step by Step

New Reports can be created from Data structure file downloaded from instrument with the report wizard in the Reports menu. Report wizard is step-by-step tool for completing final report in a "what you see is what you get" manner. Each page of the report is shown with click on Next button to navigate. On pages some fields are filled in advance with measurements and other fields are filled manually. Fields which must contain addresses and dates have drop down menus with pre-stored addresses in the Database Tab or calendar for dates.

NOTE:
By default, automatic Reports page numbering is active.
Uncheck ☑ Create report's numbers of Pages field on General tab of Main tab Settings menu, if manual page numbering is required for Reports.

10.1.1.1 Select Report Format

User can select pre-prepared Report form:

- Open test project Data structure file and within Tree view select Object, for which data structure subtree Test project Report document should be created.

- Click on Create icon within Reports group of Home menu tab to open Report selector dialog box, **Figure 10.1**.

- ☑ Include measurements : By default, Date filter is not active, all measurements are included in Report. Set date period and check box to include only Measurements performed within selected date period.

- Select report form from the list and click Create on the Report selection box, Selected Report form is opened in Report Wizard Editor Screen.

NOTE:
List of available Report forms depends on Work scope setting. Presented belongs to Electrical Installations safety testing.
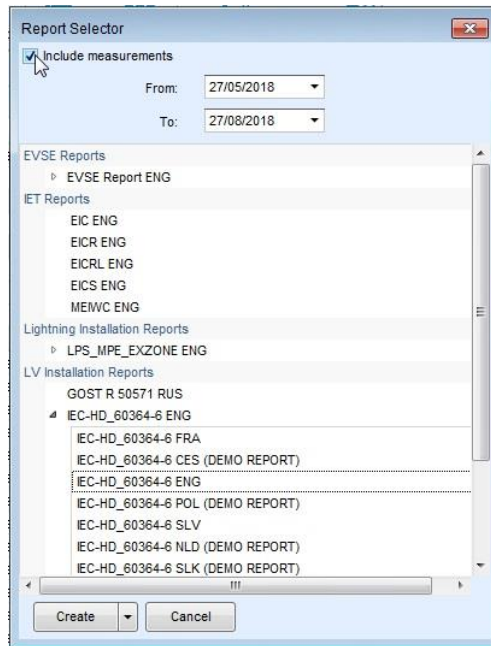
Figure 10.1: Report selector box

10.1.1.2 Report Wizard Editor Screen

Selected Report form is opened in Report Wizard Editor Screen, presented on **Figure 10.2**:
Editing options selectable from menu on the top of the page are:

- Commands organized in Groups are available on the top of Report wizard screen (❶).
- Page tabs (❷): each Report form page is presented in separate tab.
- Report form page layout (❸).
- Database list buttons (❹): click to open Database list to entry data to the nearest field.
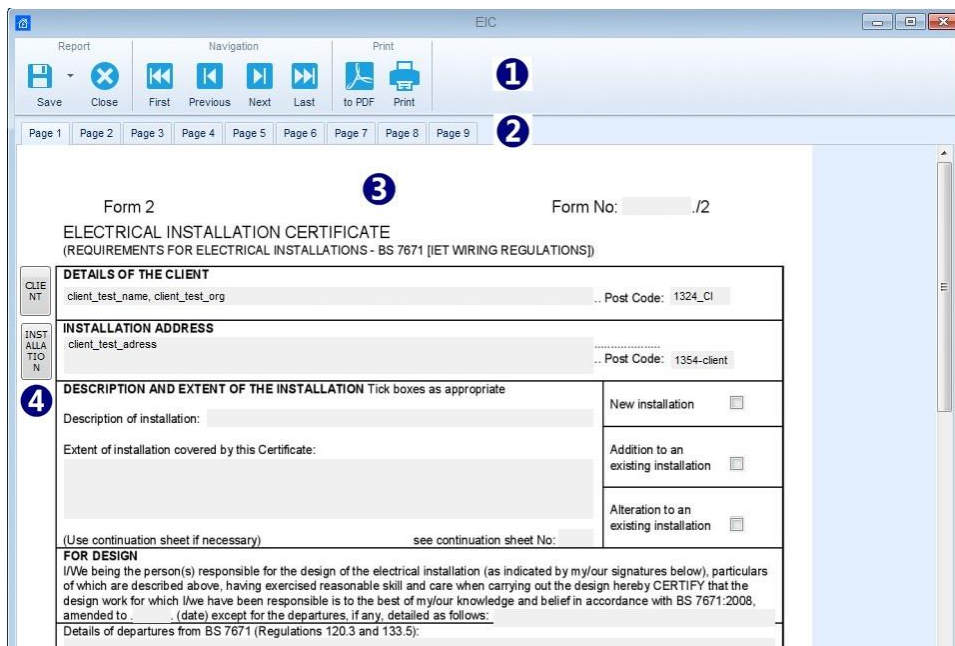
Figure 10.2: Report Wizard Editor Lookout

10.1.1.3 Check and Fill Report Pages

All pages are like an original report and they are shown in "what you see is what you get" style.
Navigation through the Report form:
At every step you can go one page back or one page forward, to the end or to the beginning of the document using commands from Navigation group.
Select page tab to jump to the desired page
User data entry:
The user can click on every field on the page and modify it.
Click on buttons on the left side of the page to open Database list associated with nearest field.
The following figure shows how to pick a date from calendar (❶) and select address from database (❷).
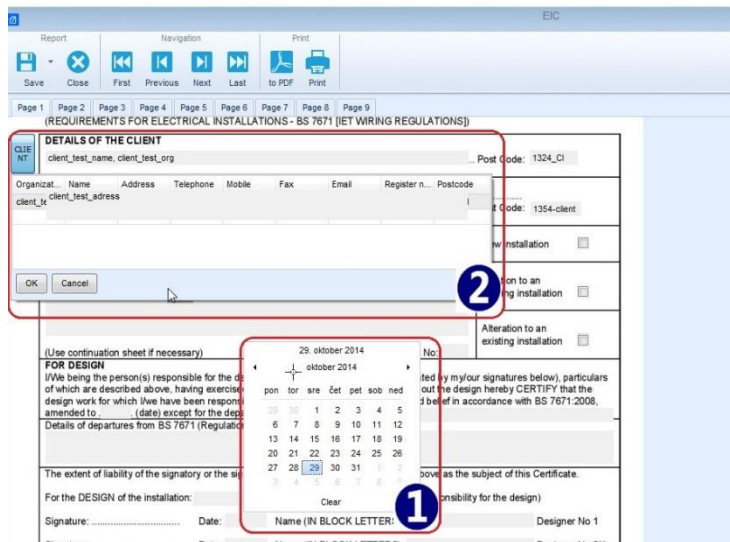
Figure 10.3: Pick a date from calendar and select address from database example
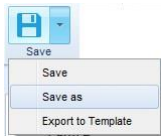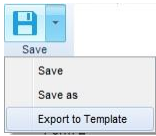
Measurements data:
Data structure file Measurements downloaded from Metrel instruments (❸) and ticks (❹) are automatically filled in the table.

Figure 10.4: Measurements with results are automatically filled in the report

10.2 Exporting or printing final report

After completing all pages the user can chose the preferred output format of the final report. Available options are:

- : **Save:** Save Report under same name to Data structure file..

- **Save as** - Save Report under different name to Data structure file.

- : **Export to template:** Save Report to the selected folder as template file (*.rtmpl).

- : Printing the report.

- : Export Report in pdf format; user is prompted to select folder and file name.

Note

Printing the report directly to a printer may not work for some older models of printer. In which case choose print to pdf. A pdf version will be created and can be printed using Adobe[®] Acrobat reader[®], available from [http://get.adobe.com/uk/reader].

11 Manage Reports

11.1 Manage Reports

Manage Reports tool from Reports tools group of Home menu tab is available, when Data structure file is opened. All previously created and saved reports associated with opened Data structure file can be managed:

- : Click on icon opens list of existing reports (**Figure 11.1**) for managing. Each report can be opened for editing, deleted or re-created (❶):

  - o : Delete Report

  - o : Open Report

  - o : Re-create Report (Update with new data from a file)
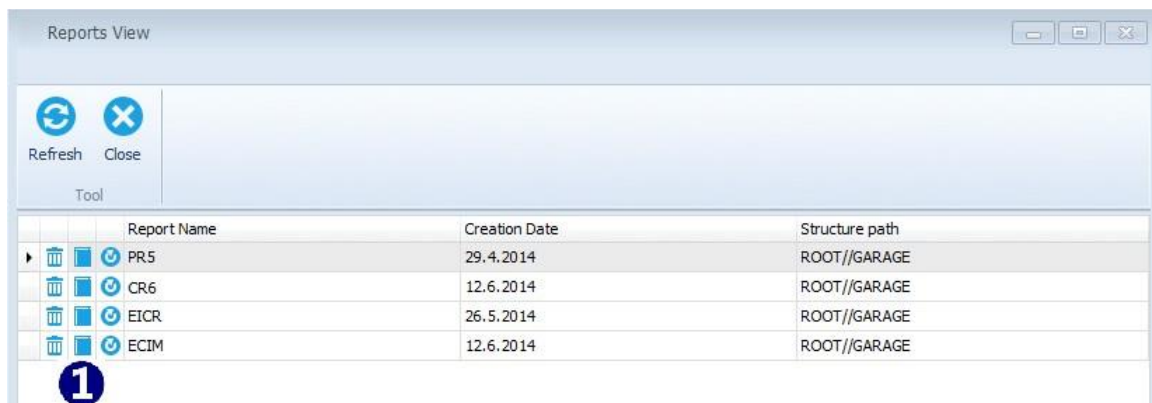
- : Refresh list of existing Reports

Figure 11.1: Manage reports window

11.2 Re-create Reports

All existing or saved reports can be re-created via Re-create button. Re-creation of report updates the selected report with new data from opened Data structure file. All earlier data in the report that were not updated remain unchanged.

- Recreate Report: Click on icon within row of Report to be re-created opens warning message first, see **Figure 11.2:**
  - o Some data can be modified or overwritten: After new downloading of Data structure file from the instrument, recreated Report is refreshed with new test data; confirm to continue.

o   Next, User is asked to set 'Date Filter' before recreation; select YES, set date period and confirm, or NO to continue.

- Re-Created Report form is opened in Report Wizard Editor Window, to perform further necessary editing of report fields, save it or export it as a template.
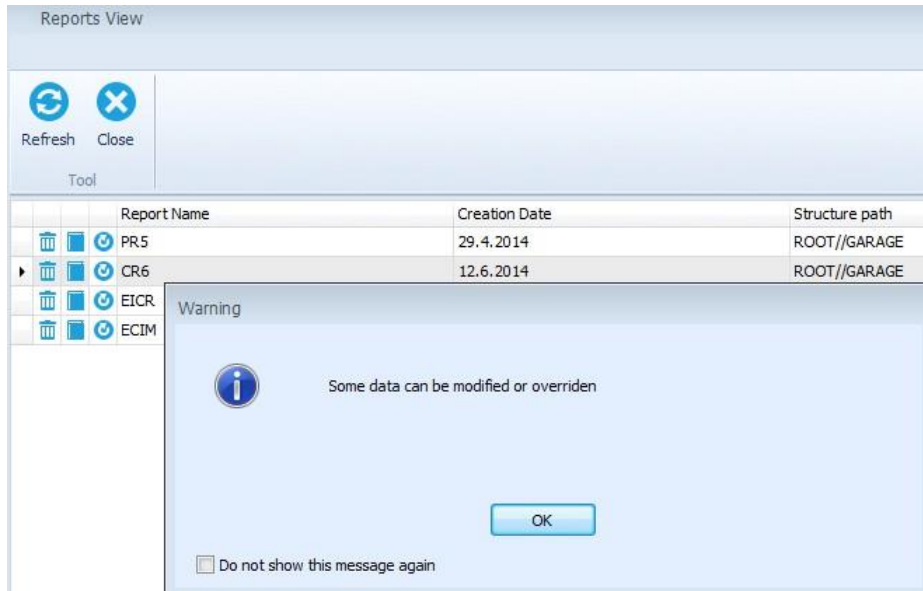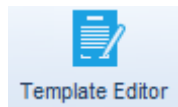

Figure 11.2: Re-create reports

12 Report Templates

12.1 Editing Report Templates

Reports can be exported as Report templates ("*.rtmpl" file). Report templates can be used in combination with different files (Projects). Template Editor is available from Tools group of Home tab menu:

- **Template Editor** : Opens browser to navigate to the Report template files folder location on the PC. Selected Report template file (*.rtmpl) is opened in Report editor window, **Figure 12.1**:
  - o Commands are available on the top of Report Template editor screen (❶).
  - o Page tabs (❷): each Report Template page is presented in separate tab.
  - o Report Template page layout (❸).
  - o Database list buttons (❹).
- **Navigation through the Report Template**:
  - o At every step you can go one page back or one page forward, to the end or to the beginning of the document using commands from Navigation group.
  - o Select page tab to jump to the desired page.
- **User data entry**:
  - o The user can click on every field on the page and modify it.
  - o Click on buttons on the left side of the page to open associated Database list

- **Save** : **Save:** Save Report Template under same name.

- **Save as:** Save Report Template under different name.
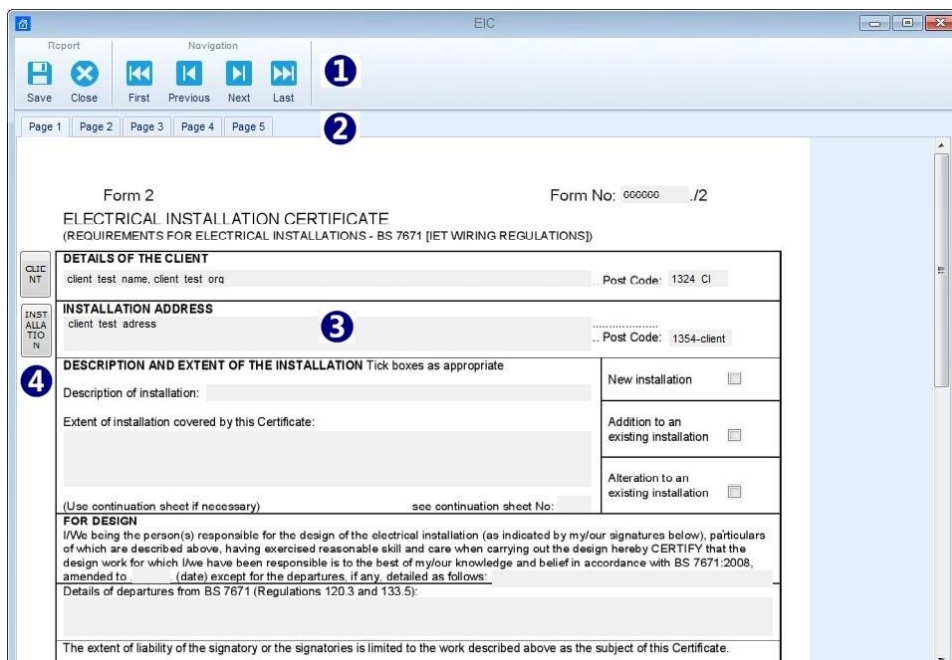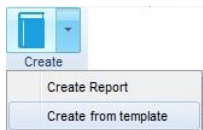

Figure 12.1: Report Template Editor

12.2 Using Report Templates

Saved templates can be used with the **Create from template** option from Reports group of Main tab menu. Data structure should be opened, that option is available:

- : Opens browser to navigate to the Report Template file folder; select one and click to Open command.

- Information window appear, user is asked to filter data with 'Date filter' before opening; select YES, set date period and confirm, or NO to continue.

- Report Template is opened in Report Wizard Editor Screen:

    o Measurements associated with measurements within opened Data structure are updated, other measurements are added to the Report.

    o Other previous data remains unchanged.

    o Data structure form remains the same and can not be changed.

    o User editable fields can be edited.

- Created Report can be Saved or Exported as template.

- Created Report can be printed to PDF format or printed directly to the Printer..

13 Troubleshooting

13.1 Introduction to troubleshooting

This chapter contains information that might be helpful if you encounter problems while working with Metrel ES Manager. If you don't find the help required to troubleshoot your problems, you can contact us directly. Check the Online support information for information on how to reach us.

Your comments will help us improve our product and update the manuals with any necessary information.

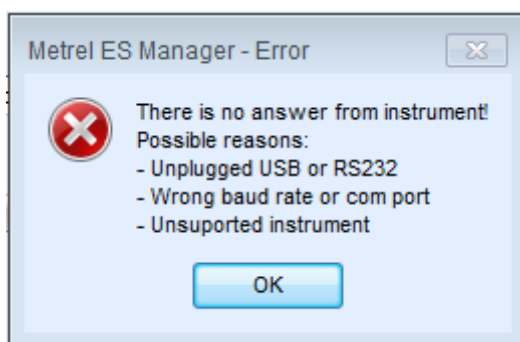## 13.2 Instrument connection troubleshooting

Figure 13.1: Instrument connection error message

If the instrument settings are configured correctly, and the communication still does not work, please check the following:

- Make sure that the cable is not broken and that the connectors are inserted properly. If you have another device which can be connected using the same cable, consider testing the cable using that device to make sure that it works.

- Make sure that you close all other applications that might be using the port. You can also try restarting Windows to make sure that all such applications are closed.

- If none of this helps, there might be a problem with the device driver for the port you are using. You could try to reinstall or repair Metrel ES Manager to make sure that your USB drivers are up to date.

13.3 Reporting problems to Metrel

This section deals with unexpected problems, errors and exceptions that may occur during usage of Metrel ES Manager. If you have encountered an error while using Metrel ES Manager, the best thing to do is to report this issue to our support at <metrel@metrel.si>. This will help us find a solution quickly, and provide you with an updated version, hotfix, or help you extract the data from your instrument if the issue prevents you from doing so.

13.3.1 Bug report checklist

This section contains a brief list of items which your bug report should contain. For detailed information about each step, consult the next section.

1. Regardless of the problem you are reporting, the minimum amount of information we need is:
   - A short description of the problem and, most importantly, steps needed to reproduce it;

   - Metrel ES Manager log file (located in `..\MESM\Log\` folder).

14 Online support information

14.1 How to get support?

14.1.1 Contact us directly

Metrel d.d. Slovenia
Ljubljanska cesta 77
Horjul, SI-1354 Slovenia
Phone: +386 1 7558 200
Fax: +386 1 7549 226
E-mail: metrel@metrel.si

Web site: www.metrel.si [http://www.metrel.si/]

14.1.2 Use the online contact form

You can also contact us using our Contact form [https://www.metrel.si/en/contact/]. That web page also contains a map describing the route to our Company's headquarters.