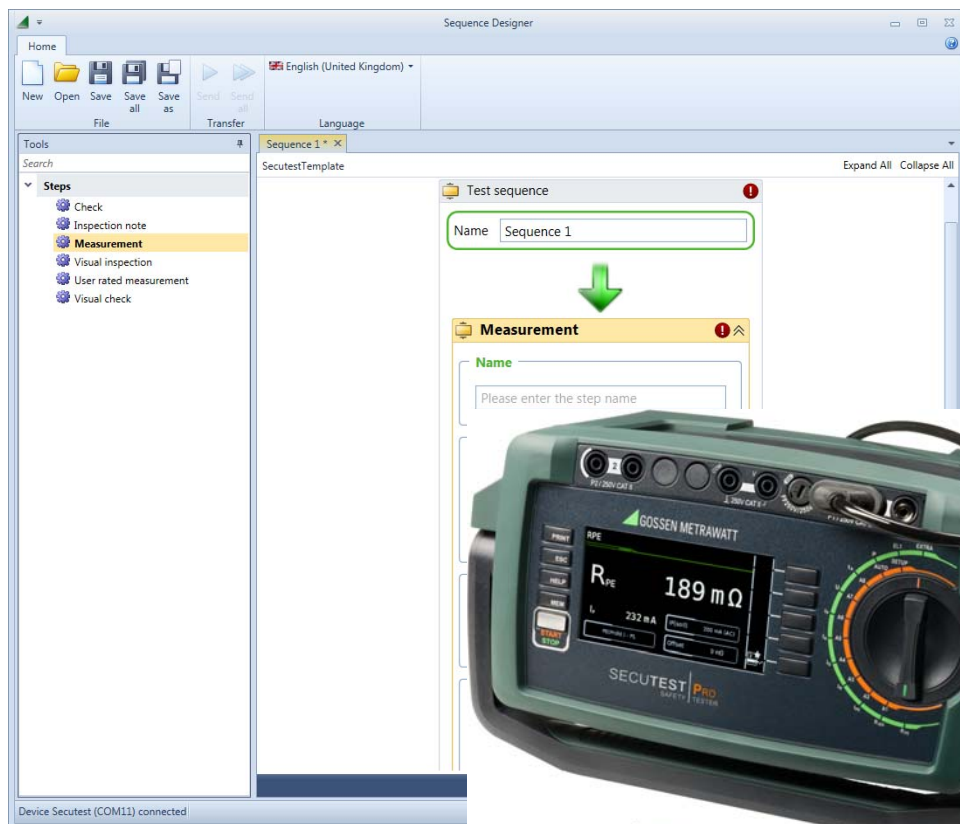


Sequence Designer

Creation and Editing of Test Sequences at the PC and Transfer to the Test Instrument

3-349-843-03
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1 Applications

Test sequences can be created at the PC and uploaded to the test instrument with the help of **Sequence Designer** software. The test sequence preview function generates an accurate preview if the test instrument is connected and a test object has been selected.

A maximum of 10 test sequences can be transferred to the test instrument, because no more than 10 “user” sequences can be saved and managed there.

Supported test instruments:

- **SECUTEST BASE, only with database expansion (feature KB01)**
- **SECUTEST BASE10, only with database expansion (feature KB01)**
- **SECUTEST PRO**

2 System Requirements

Prerequisites for your PC with regard to hardware and operating system are listed in concrete terms in the following subsections.

2.1 PC hardware:

- See minimum requirements for the respective operating system with regard to processor and RAM (at least 1 GHz and 512 MB)
- VGA monitor with a resolution of at least 1024 x 768 pixels
- Hard disk with available memory as follows:
at least 850 MB for 32-bit systems
at least 2 GB for 64-bit systems
- Mouse and keyboard
- One or more USB ports
- Internet access in the event that Microsoft components such as .NET have to be installed

2.2 Operating System

- Windows Vista, Windows 7 or Windows 8
- Microsoft .NET Framework 4.5.2

3 Download and Installation

Sequence Designer software for creating test sequences can be downloaded from our website:

<http://www.gossenmetrawatt.com>
→ Products → Software → Software for Testers
→ Report Software without Database → **SequenceDesigner** → [myGMC](#)

After downloading the ZIP file, it has to be decompressed to a directory (e.g. with WinZip). The setup file then appears in the selected directory.

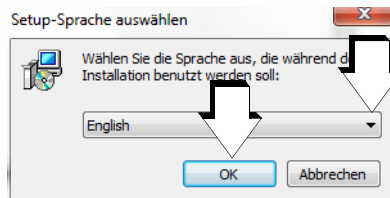


Attention!

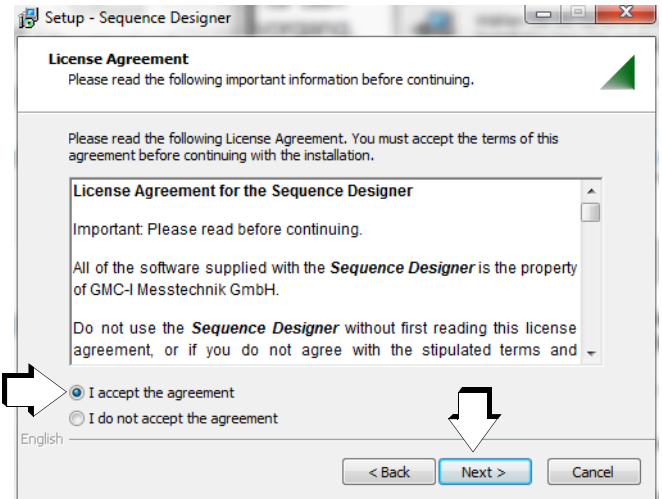
If another version of the software has already been installed to your PC, do not uninstall the predecessor version unless you no longer need any of the stored data, or have saved them to a separate directory.

A wizard guides you through the entire installation process, which is described using Windows 7 as an example.

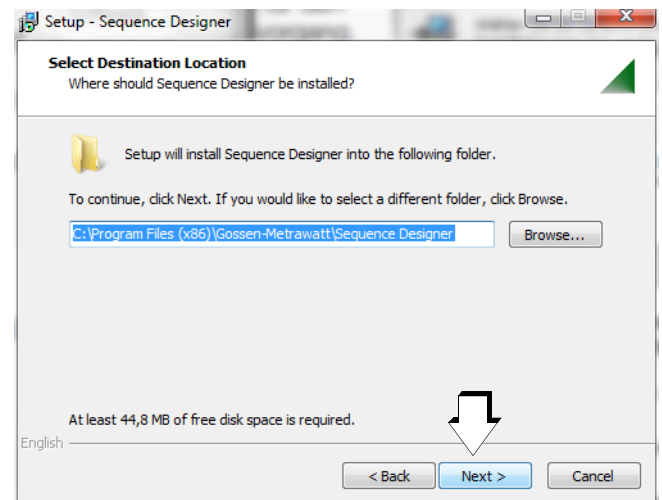
- ⇨ Double click the **GM_SequenceDesigner_Setup_V1.0.0.exe** file in order to start the installation routine.
- ⇨ Select the desired language for the installation process.



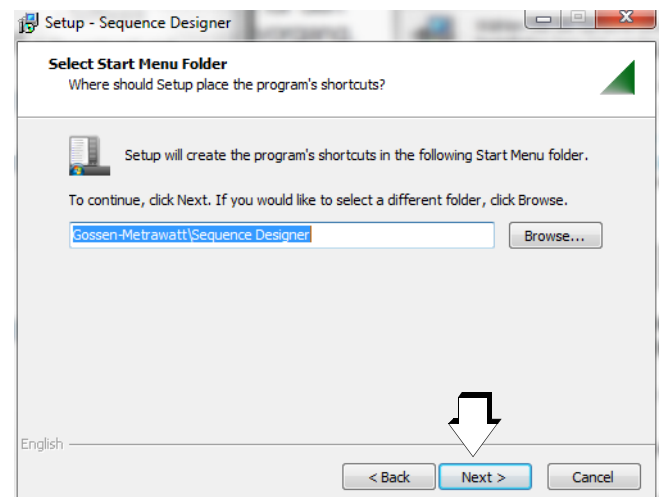
- ⇨ Exit all other applications before continuing with setup.
- ⇨ Then click "Next".



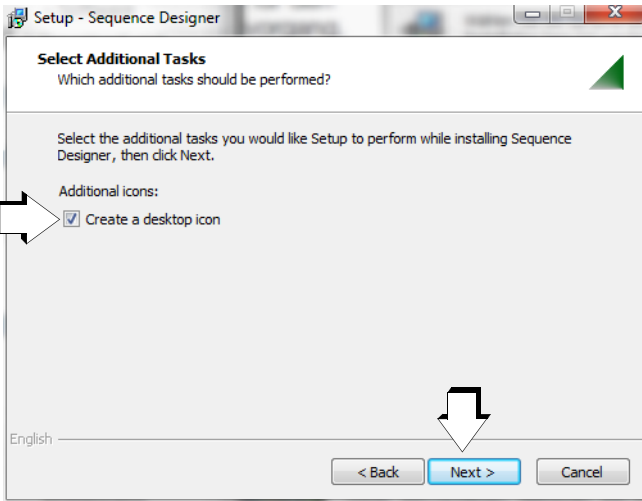
- ⇨ Read the agreement.
- ⇨ If you accept the agreement, click "Next".



The installation program is installed to the specified target directory after clicking "Next".

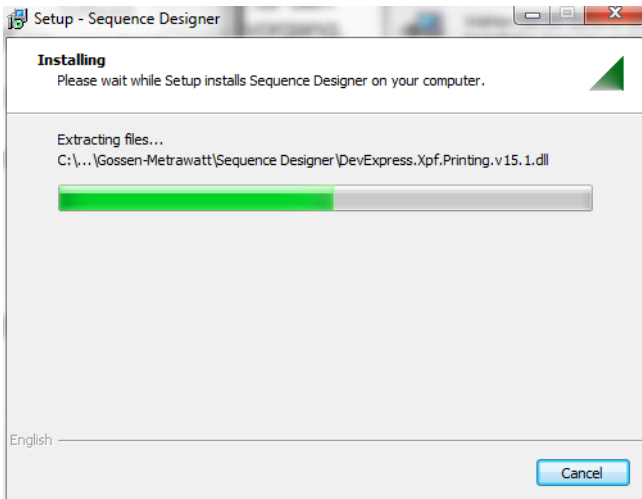


A program link is installed to the specified start menu folder after clicking "Next".



The associated desktop icon is created after clicking “Next”, if this option has been selected.

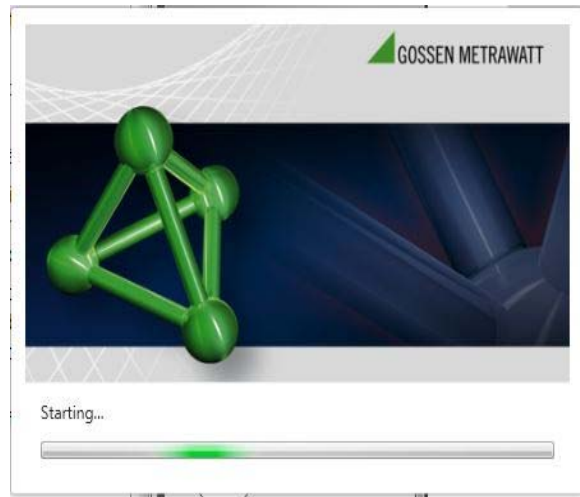
- ⇒ Then click “Install”.



A progress bar is displayed.



- ⇒ Click “Finish” in order to exit the setup wizard.
- ⇒ If you have activated the “Launch Sequence Designer” option, the program is started after clicking the “Finish” button.



The display shown above appears while the program is starting.

4 Connecting the Test Instrument to the PC

Sequence Designer software can only be started if a connection has been established between the test instrument (USB slave) and a PC via the USB port. If connection is interrupted while the program is running, the program is exited. A security prompt provides the user with the opportunity of saving data.

We therefore recommend connecting the test instrument to the PC before starting the program.



Note

Only **one** test instrument may be connected to the PC at any given time.

5 Overview of Sequence Designer Functions

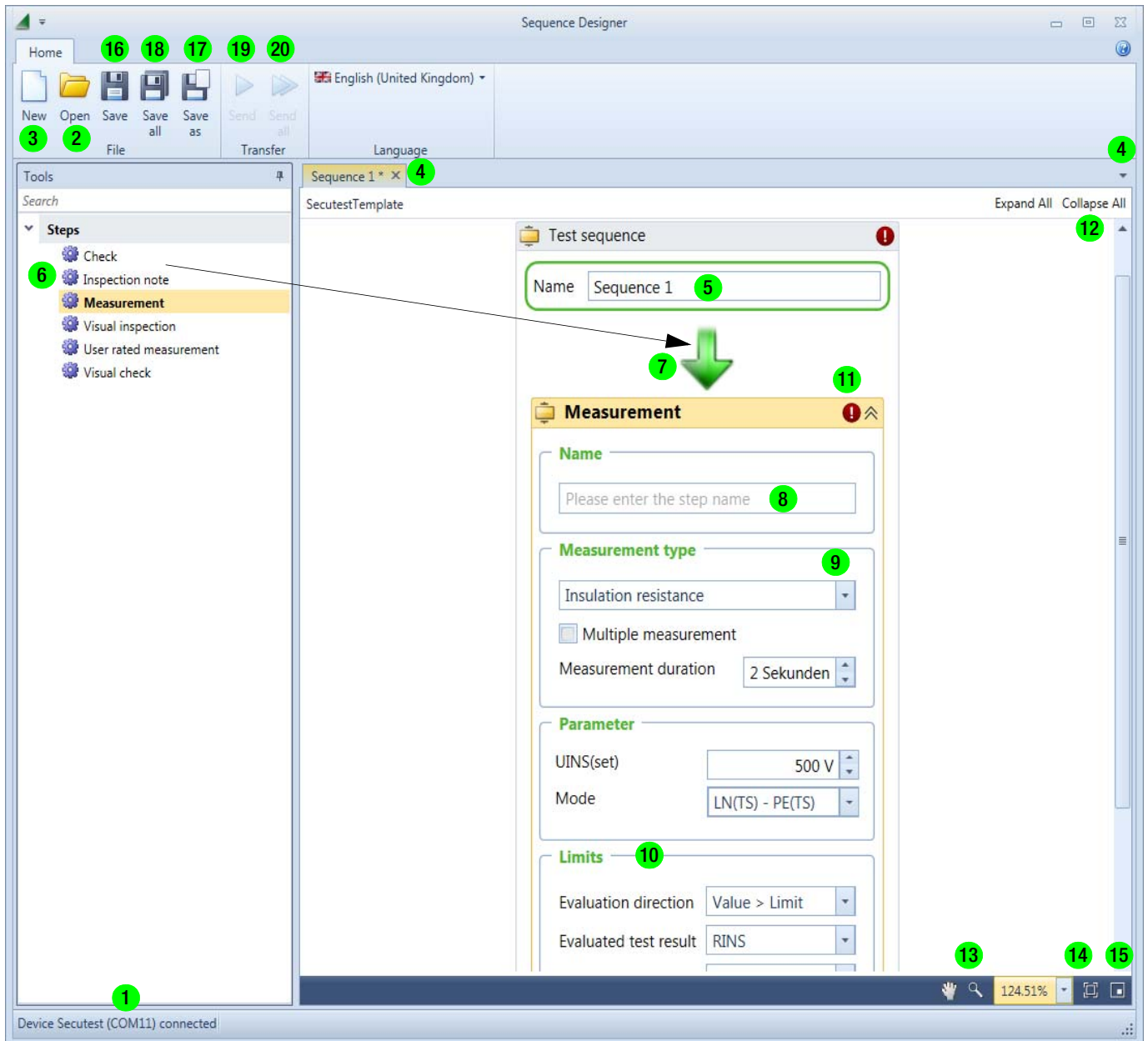


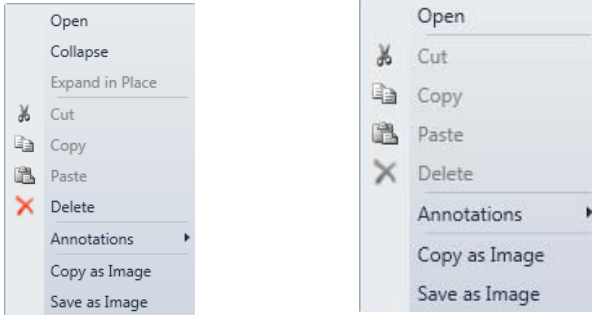
Figure 1: Overview of the Sequence Editor's Functions

Key for Sequence Designer Functions

- 1 **Interface information:** The program can only be started if the **SECUTEST PRO** test instrument is connected to the PC via the USB port.
- 2 **Open:** Load a stored test sequence.
- 3 **New:** Create a new test sequence. Several test sequences can be simultaneously created and edited. A new tab is created each time the **New** icon is clicked.
- 4 **Tab selection:** In order to select the respective test sequence, click the corresponding tab or the pull-down menu at the right-hand side of the window, and then click the desired sequence.
- 5 **Name:** Enter the designation of the new test sequence. Only this name appears in the test instrument. This name is independent of the filename.
- 6 Select a test step, for example **Measurement**, or a test note for the inspector: press and hold the left mouse key and ...
- 7 ... drag to the green progress arrow.
- 8 **Name:** Enter the designation of the newly added test step.
- 9 **Measurement type:** Select measurement type and duration, as well as whether or not it's a multiple measurement.
- 10 **Parameters, limit values:** Set parameters and limit values.
- 11 **Attention!** An exclamation mark in a red circle appears in the case of missing entries. Move the cursor to this position (without clicking), in order to read the corresponding message.
- 12 **Collapse all:** Only the names of the test steps are displayed (for improved clarity).
Expand all: Test steps are once again displayed with all of their parameters.
- 13 **Magnifying glass icon:** The size of the test step display can be selected with the help of the pull-down menu: 25% ... 400%.
- 14 Adapt all existing steps included in the sequence to the **current screen size**.
- 15 Display **overview**, current position is highlighted in red.
- 16 **Save:** The completed test sequence in the active tab can be saved under the current filename.
- 17 **Save as:** The completed test sequence in the active tab can be saved under another filename.
- 18 **Save all:** All open test sequences (all tabs) are saved, one after the other, under the specified names.
- 19 **Send:** The test sequence selected via the respective tab is transferred to the test instrument by clicking the **Send** button.
- 20 **Send all:** The test sequences (up to 10) in all actively open tabs are transferred to the test instrument by clicking the **Send all** button.

5.1 Positioning and Displaying Test Steps

Depending on which test step is selected with the left-hand mouse key, one of the following submenus for the corresponding test step operations appears after clicking the right-hand mouse key.



Cutting, Copying and Pasting Test Steps

A test step can be deleted with the help of the “cut” command, and can then be added at another position with all of its previously entered settings.

Moving a Test Step

Alternatively, a test step can be moved by selecting it: press and hold the left-hand mouse key, drag to any desired arrow position and then release the key.

Saving or Copying a Test Sequence as an Image

For the purpose of documentation, the entire test sequence can be copied as an image and inserted into your Office template (DIB format), or it can first of all be saved as an image and then inserted into your document.

Overview – Meanings of Submenu Commands

Icon	Menu Option	Meaning
	Open	Display only the current test step and its parameters.
	Display higher-level element	Switch from current test step display to the complete, but reduced structure view.
	Expand in place	Display the selected test step and its parameters along with the entire structure view.
	Collapse	Display the selected test step with its designation only.
X	Delete	Delete the selected test step.
	Annotations	Add a comment.
	Copy as image	The entire test sequence is copied to the clipboard.
	Save as image	The entire test sequence can be saved using any of the following formats: JPG, PNG, GIF or XPS.

6 Step by Step Instructions

6.1 Prerequisites

The following prerequisites must be fulfilled in order to create and transfer a test sequence:

- The test instrument is a **SECUTEST PRO** (or test instrument with feature KB01).
- The **SECUTEST PRO** test instrument must be connected to mains power and switched on.
- The **SECUTEST PRO** test instrument must be connected to the PC via the USB port.
- **Sequence Designer** software has been installed and started. The active USB port, via which the test instrument is connected, is displayed in the footer.

6.2 Creating a Test Sequence

- Start **Sequence Designer** by double clicking the **SequenceEditor.exe** file or the icon.
- Click **New** (Ctrl + N) in order to create a new test sequence.
- Enter a designation for the test sequence under name, for example the name of a standard in accordance with which testing will take place. Only this name appears in the test instrument. This name is independent of the filename under which the test sequence is saved.
- Add the individual test step (**gear icon**) to the test sequence by selecting the catalog entry, pressing and holding the left mouse key and dragging the entry to the green **progress arrow**.

Adding a “Check” Test Step

- A reference measurement can be performed at the beginning of a test sequence.
- Enter a designation for the check measurement under **Name** (up to 10 characters).
- Select the type of **reference measurement**, as well as whether it's an individual, manual or periodic reference measurement.
- **Parameters** and **limit values** must also be specified.

Creating an “Inspection Note” Test Step

- You can add an “inspection note” at the beginning of each measurement, if special instructions are required for the respective measurement.
- Enter a designation for the inspection note under **Name** (up to 10 characters). Enter instructions which are appropriate for the respective measurement under **Text**, for example: “Contact all accessible conductive parts with the probe!” Select “mains off” or the respective polarity if mains power will remain switched on, i.e. **L/N** or **N/L**, as required for the pending measurement.

Adding a “Visual Inspection” Test Step

- Enter a designation for the visual inspection under **Name** (up to 10 characters).
- Under the polarity parameter, select “mains off” or the respective polarity if mains power will remain switched on, i.e. **L/N** or **N/L**, as required for the pending measurement.
- Enter instructions which are appropriate for the respective visual inspection under **Text** (up to 140 characters), for example “Determine whether or not the mains plug, the terminals and the wires are in good condition”.

Creating a “Measurement” Test Step

- Enter a designation for the test step under **Name** (up to 10 characters) in accordance with the subsequently selected measurement type, e.g. insulation resistance measurement.

- Select the desired measuring function via the pull-down menu in the **measurement type** area. The parameters and limit values available at the test instrument appear, depending on the selected measuring function.
- If several points have to be contacted or measured, one after the other, **multiple measurement** can be activated here. Selection of a large measurement duration is not sensible in this case. Enter a measurement duration of 1 to 15 seconds.
- Set the **parameters** and **limits** for the individual measurement in accordance with the measuring environment. An exclamation mark in a red circle appears in the case of missing entries. As soon as all required entries have been made, the exclamation mark disappears.



Note

The parameters are dynamically adapted by the software, i.e. only those parameters appear which are actually included in the respective test instrument version.



Note

If the parameter field remains empty, we recommend updating the firmware to the current version available from the Internet.

User Evaluated Measurement Test Step

This measurement only differs from the previous measurement in that multiple measurement cannot be selected because this is a manual measurement. The limit value is omitted here as well due to manual evaluation.

Adding a “Visual Check” Test Step

- This special test step is intended for continuity testing of single and 3-phase extension cables with the corresponding test adapter.
- Enter a designation for the visual check under **Name** (up to 10 characters), e.g. continuity test with EL1.
- Continuity test is currently the default setting for measurement type.
- Any of the following single or 3-phase adapters can be selected under parameter: EL1, VL2E or AT3-IIIIE.

Changing Test Step Order

- Before changing the order of the test steps, you should execute the “collapse all” command in order to obtain improved clarity.
- The **order** in which the test steps are executed can be changed at any time while creating the test sequence by selecting the respective test step, pressing and holding the left-hand mouse key and dragging to the desired green **progress arrow** (see also section 5.1).
- After the test sequence has been completed, it should be **saved** before it’s transferred to the test instrument.

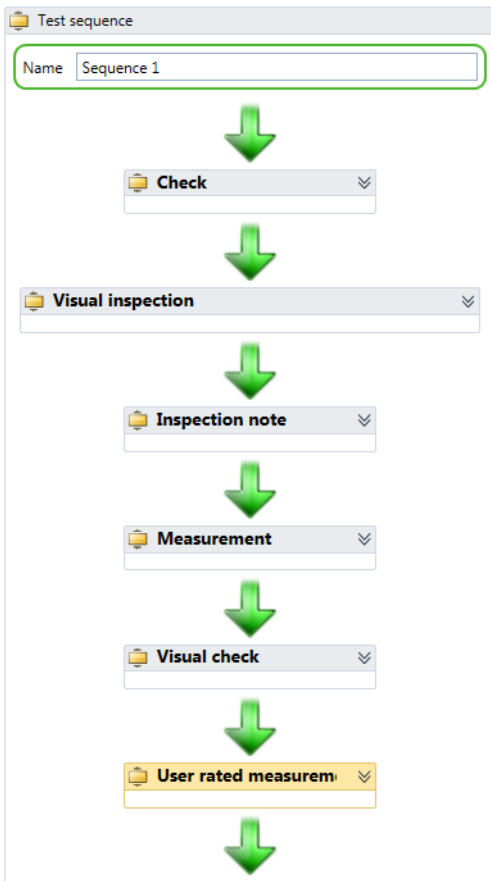


Figure 2: Example of a Test Sequence with Collapsed Display

6.3 Transferring Test Sequences to the Test Instrument

- ⇨ The currently open, selected test sequence is transferred to the test instrument by clicking the “Transfer” button. If all open test sequences need to be transferred, click the “Send all” button (up to 10 test sequences).
- ⇨ Alternatively, you can also save the desired test sequences to a **USB stick** using the “save as” command, and then load the corresponding file with the “.uds” extension to the test instrument after connecting the USB stick to it.
 SETUP switch setting:
 Setup 3/3 > User sequences > **Load from file.**



Note


It's not currently possible to read test sequences back out of the test instrument which have been created with **Sequence Designer** and transferred to the **SECUTEST BASE(10)/PRO**.
 In addition to sending self-created test sequences to the test instrument, we recommend saving them to a file at the PC as well, so that they can be edited or transferred to other test instruments later.

6.4 Managing Test Sequences at the Test Instrument

The so-called “user sequences”, i.e. self-created test sequences, can be managed (renamed or deleted) in the test instrument's setup menu:

SETUP switch setting:
 Setup 3/3 > User Sequences > **Manage sequences.**

6.5 Activating a User Test Sequence at the Test Instrument

- ⇨ Select switch setting A1 ... A8 or AUTO.
- ⇨ Press the direct selection key in order to set the measurement type. 
- ⇨ Select the **Standard / Test Sequence** parameter.
- ⇨ The user sequences or self-created sequences can be found at the end of the default test sequences in accordance with the standards. These are identified with an asterisk.

7 Product Support

If required please contact:

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Product Support Hotline
 Phone: +49-911-8602-0
 Fax: +49 911 8602-709
 e-mail support@gossenmetrawatt.com