



WinSAM 6

Modular. Clear. Efficient.

WinSAM 6 – More efficiency by new structure



The new WinSAM will bring you to your destination – easier and faster than before.

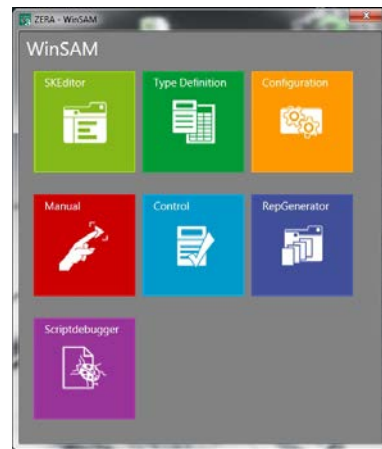
WinSAM 6 guides through the scope of functions by revised user interface and clear structure.

Beginning with the test preparation, continuing with the measurement procedure up to the test reports. All test steps are available by one mouse click.



Control of Meter Test Systems

WinSAM serves for controlling and testing of Meter Test Systems and contains of individual programs that completes the package for meter testing. Whether configuration, generating individual test procedures, manual or automatic control – WinSAM provides a variety of functions.



Specialised programs

WinSAM contains seven individual programs. Each program includes only the features you need for your special task. This keeps the program simple, the scope of functions clear and tasks can be managed faster.

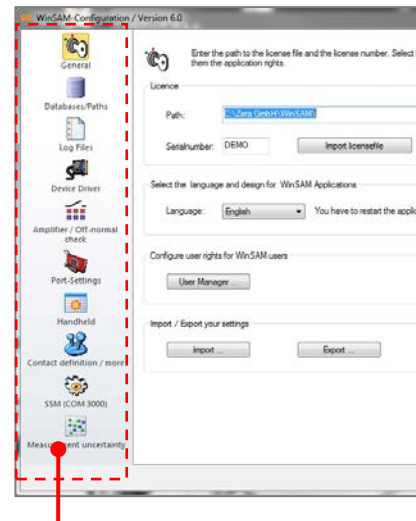
Individual test sequences

The quantity of meter types is continuously increasing. Each meter type requires individual test procedures according to its specifications. WinSAM offers an extensive range for individualisation.

Configuration



Inside the **Configuration** program the working environment can be individually adapted to the system environment. Information concerning the test system, path specifications, user rights or settings for the handheld terminal are entered here. Inside a service area configurations for connected devices, port settings, amplifiers or auxiliary circuits can be made.



All configuration options are at one place.

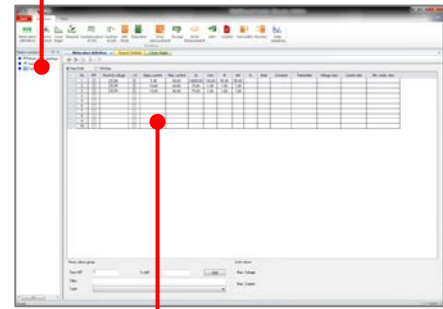
Manual operation



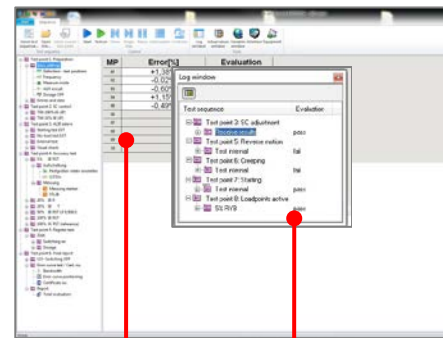
Sometimes it is not necessary to execute an entire test sequence, as only individual functions are required for example to check the technical specifications of a meter before compiling an automated test sequence. **Manual** program is used for manual control of the entire test system.

It allows direct execution of individual functions without the need to integrate them into a full test sequence. Several test steps can be opened at the same time. Test steps executed with the **Manual** program are not included in the test report.

The status window shows all open functions.

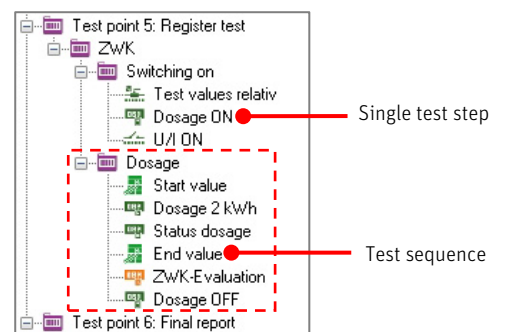


Test values are entered and functions are Executed in detail view.



Parameter in detail

All test results in an overview



Control – Automatic operation



An automatic test procedure can occur by **Control** program. In order to check each test step for plausibility a monitoring procedure occurs before a test procedure will be started. Thereafter the program controls the complete test system, receives measuring values and test results, carries out evaluations and writes them into the database. The results can be shown in the log window. There are individual settings possible e. g. repeating, blocking or skipping of single test steps.

SKEditor– Test sequences with drag & drop



The Editor is used to compile and administrate the test sequences. It provides a wide range of options for the compilation of a test sequence, which can be combined as building blocks for individual test elements.

With version 6 subject areas are clearly structured and colour-marked. This feature serves for guidance while generating a test procedure and quick access of single test steps.

Re-usability

In order to avoid redundancies, used test-step combinations can be stored as step chains and can be used in any way. These step chains can be used in any test sequences.

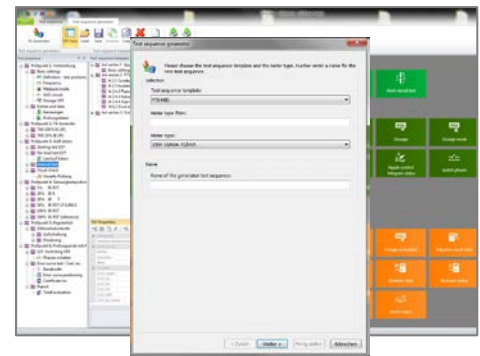
When only some of the test steps are sufficient to do the work, the user can create containers for combining the relevant test steps and step chains.

In this way, only the relevant test steps are shown. The containers can also be used to store user scripts. It is possible to import and export test sequences to use them on different computers.

Test Sequence Generator

Testing and calibrating standards are generally regulating the directives of testing electricity meters. WinSAM allows to create test sequences in a manual way or by a few mouse clicks you will get to your complex and standardized test sequence for example according to PTB/MID standards.

1. Select your test sequence template (TST).
2. Enter the parameter of the meter to be tested inside the type definition.
3. Generate the desired test sequence by pushing a button.



Optional: On request we create an individual TST according to your national standards or to customized requirements.

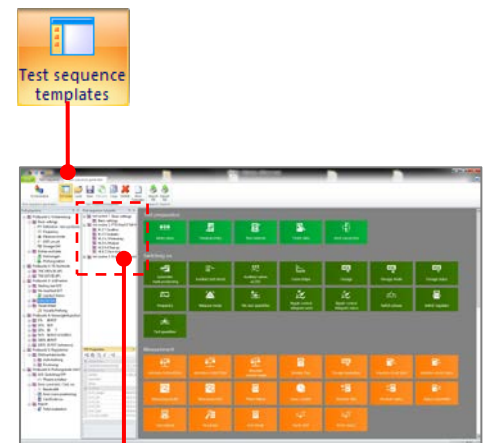
Test Sequence Template – Details

Test Sequence Templates (TST) are required to create test sequences by the Test Sequence Generator. These templates need to be created manually only once. They are stored in the WinSAM database. A TST is basically a test sequence but includes additionally parameters such as loops and condition parameters. When the generator will be executed the new test sequence will be generated from this template. Only test steps which are in accordance to the parameters will be considered. The loops and condition parameters as well as the specific meter data will be defined in the meter type definition of the meter to be tested. If the test sequence generator has been started the chosen TST will be linked with the selected meter type manually by the operator.

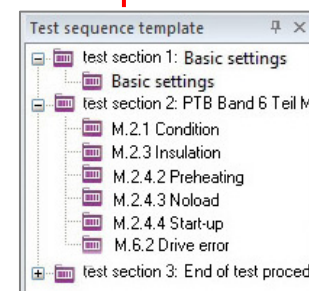
The new test sequence can now be created just by a few mouse clicks. At present the following TST are available in WinSAM:

- Testing according to MID / PTB
- EDL21 / 40 testing
- Verification of the test bench with an external transfer-/reference standard.

Further TST can be created by the user or on request by ZERA.



Example: Window arrangement for creating a new TST

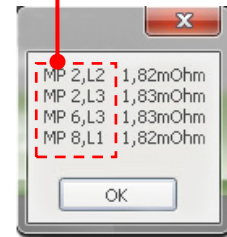


Burden Measurement**

WinSAM 6 provides error detection and indication within the meter contact in every phase. Independent of external conditions (e. g. pollution of contacts) or internal causes, measured values and evaluations will be indicated after the burden measurement has been performed.

In case that the evaluation is fail WinSAM additionally shows the resistances (in mΩ) in a separate window for each meter place (MP) and phase.

List of all errors for each meter place (MP) and phase (L1, L2, L3)



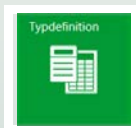
Breaker Test*

Meters which are equipped with breaker can be tested in every current path via breaker test. For testing the contact (open or closed) a minimum of current will be send through the meter.

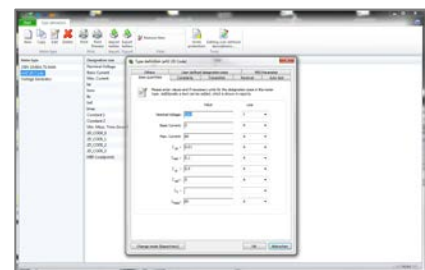
* optional



Type Definition- Administration of meters



Type definition program provides to test the different types of meters according to their specifications. It can be used to define and administrate any number of meter types. Central administration allows access to the meters from all other WinSAM programs. The name of the new meter type can be freely selected. The definition of a meter includes all its type-specific data (IEC and MID). Pre-defined variables are available for this purpose. They can be extended by user-defined variables, if required. Where there is a WinSAM access database with type definitions, the type definitions can be imported. Defined types can also be exported.



Report – Test reports of the automatic tests



The test reports of the automatic tests are generated and administrated with the Report program. The number of sessions listed in the log can be limited with user-defined filters. A wide range of tools is available for processing the logged data: reports for all or individual meter places, a special random sampling report, statistics of the ratio of good and bad ratings, report with mean, range and standard deviation resp. error curve of all measured error values during selected sessions with highlighting of the error band. It is possible to print all sessions or only the selected sessions. The print templates for the report can be individually configured with regard to test parameters, test results and header data. Test runs can be allocated to a batch to sort tests according to orders or customers. For random sampling tests, test procedures are allocated to a random sample. In the log, this test is automatically allocated to the respective charge or random sample.

Session number	Date	Start	End	Test Sequence
25	24.02.2009	08:45:57	09:54:13	gRichtungen
68	24.02.2009	09:50:20	10:01:42	gWV_2
69	24.02.2009	10:05:52	10:06:08	gWV_2
40	24.02.2009	11:10:38	11:10:58	gWV_2
41	24.02.2009	11:18:37	11:18:53	gWV_2
42	24.02.2009	11:27:44	11:28:05	gWV_2
43	24.02.2009	14:28:35	14:29:01	gWV_2
44	24.02.2009	15:10:30	15:16:18	gWV_2
23	20.08.2009	12:20:59		Session in open
24	20.08.2009	12:37:38		Session in open
26	24.02.2009	08:50:04		Session in open
27	24.02.2009	08:52:17		Session in open
30	24.02.2009	09:20:30		Session in open
29	24.02.2009	09:11:01		Session in open
30	24.02.2009	10:00:04		Session in open
31	24.02.2009	10:08:02		Session in open
32	24.02.2009	10:37:30		Session in open
33	24.02.2009	10:40:22		Session in open
34	24.02.2009	10:49:12		Session in open
36	24.02.2009	10:53:12		Session in open
38	24.02.2009	10:53:29		Session in open

Session number
25
68
69
40
41
42
46
43

Test can be allocated to batches or random samples.

Skript debugger – Define individual test functions



WinSAM provides realisation of additional functions via script in one of the script languages VBScript or JScript supported by Windows. WinSAM offers specially developed debugger with professional scope of functions.

The script debugger provides all functions required for editing and testing of scripts in VBScript or JScript

```

Function Check(f)
    Tarif = s
    Filter vom Benutzer eingegeben, z.B. "1,0,1"
    MugBox(Tarif)
    Dim Filter
    Dim Wert
    Filter=GlobalVar.GetGlobalVarStatic(Tarif)
    If Filter="" Then
        Wert=GlobalVar.GetGlobalVar(Tarif&"_A")
        If Wert="" Then
            MugBox(Tarif&" missing!")
        End If
    End If
End Function

Sub Main()
    Dim gRichtungen
    gRichtungen=Array("F","F","F","F","F","F","F","F","F","F","F","F","F","F","F","F","F","F","F","F")

    For i=1 to 8
        For each g in gRichtungen
            Check("110g")
            Check("110g")
            Check("110g")
        Next
    Next

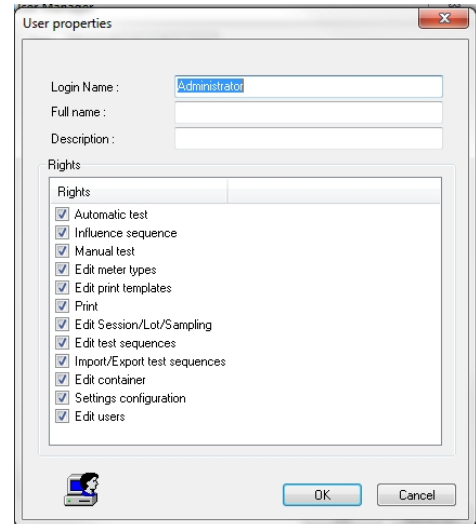
```

Test WinSAM in demo mode

WinSAM provides a test version without time limit. You receive a slightly restricted test version, which allows you to get familiar with the basic functions of WinSAM. The hardware is simulated in a standard configuration. It is not possible to control a system with this version.

**Task-oriented
user rights**

The user administration of WinSAM supports a task-oriented allocation of user rights. New users can be created and their rights can be defined by choosing the corresponding functions. Each user receives a range of rights that is tuned to a specific range of tasks.

**System requirements**

Operating system: Windows 7 and Windows 8.1
SQL server: SQL2008 or SQL2012
Processor: From i5, 4 GB RAM
Interfaces: 2x USB (An extension may be required depending on the ordered options.)
Drives: DVD-ROM or adapter for SD cards
Memory space: 10 GB memory on C:\

