

## 8.8 Software

# PRODAS

Data. Knowledge. Competitive edge.

## Automation of information processes

PRODAS impresses through its functionality

PRODAS is the professional data analysis system for your quality assurance and data analysis. The data and measured values from your systems are recorded and stored in the PRODAS database. PRODAS accesses these data and allows them to be interactively evaluated. Analysis can take the form of tables, charts and reports. Pivot Grid enables an ad-hoc analysis and interpretation of your data.

Synergy for you

The trend toward ever greater data transparency explains why software specialists Consipio and test systems manufacturer Elabo have teamed up to develop PRODAS. The interdisciplinary know-how of both these companies has given rise to an outstanding solution for your needs as a customer. A must-have for any company wishing to address the constantly growing demand for information.

## Early identification of trends

Vorteile durch besondere Eigenschaften

- Developed through collaboration between the market/technology leaders
- Open import and export structures
- Flexible visualization and analysis features
- Customizable report functions
- Automation of information processes
- Streamlined and fast retrieval processes thanks to filter functions

Your special advantage

The experienced Consipio team is there to advise you on how to successfully integrate PRODAS within your company in line with your ideas.

## Defect analysis and traceability

You operate test systems for quality assurance

PRODAS allows the early identification of trends in your production processes. This enables you to prevent defects and cut costs. Trace defects without limits on time and identify previously unknown connected events. Fast and flexible analysis of the required data makes it easier for your employees to understand what is happening and allows them to draw conclusions with regard to hidden problems. This results in continuous process improvements.

# PRODAS Data. Knowledge. Competitive edge.

- Tracing of data
- Detection of defects
- Understanding of connected events
- Improvement of processes

## Wide range of import and export options

Dynamic, flexible, customizable

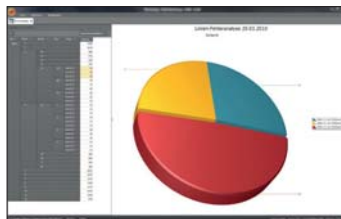
The processes at your company have grown over the years, been optimized and have developed their own precious dynamism.

Our software adapts to your processes by outputting the results in commonly used file formats (Excel, PDF, etc.) at the click of a button. It is also possible to import spreadsheets, which allows your employees to continue with their proven working practices using, for example, Excel – while, however the data remain globally accessible with PRODAS.

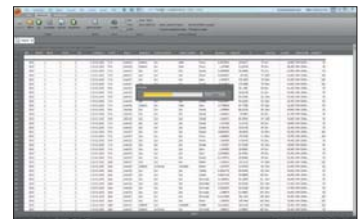
- Dynamic data in fixed formats
- Import from many different sources
- Flexibly customizable reports
- Variety of export options
- Globally available



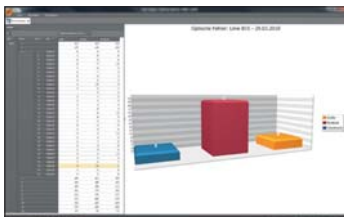
Charts



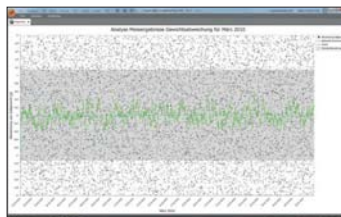
Defect analysis



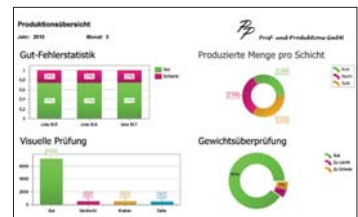
Data export



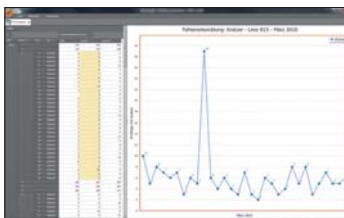
Evaluations



Measured data visualization



Cockpit charts



Traceability



Intranet/internet connectivity



Data sharing

# **PRODAS** Data. Knowledge. Competitive edge.

## Globally informed through the web interface

Intranet / internet

PRODAS enables you to access your reports and analyses, in their most recently updated form, from anywhere in the world. Networking delivers advantages across departmental boundaries.

From quality management to sales, from purchasing to management. Your employees have independent access to all the relevant information they require.

Information at the right time in the right place.

# Elabo Elution<sup>®</sup> Suite

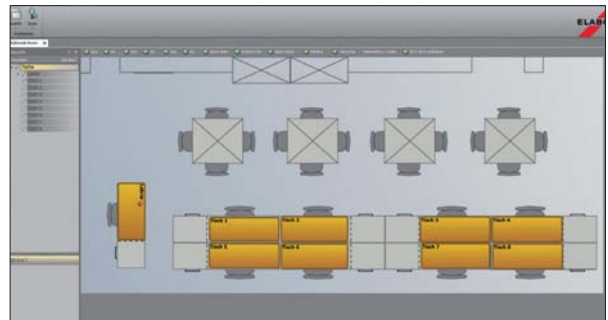
## Elution<sup>®</sup> Training

### Control and monitoring of classrooms

Modern classrooms are now centrally controlled and monitored. Functions such as two-stage voltage release or the operation of foldaway systems can be easily selected by mouse click for either a single table or entire rooms. The operation of an emergency STOP button is immediately visually indicated.



The Elabo software allows classrooms to be faithfully and realistically reproduced and controlled. At all times, a perfect overview of the individual tables guarantees that instruction can proceed smoothly. The monitors at the individual student workstations can be remotely viewed and, if necessary, the instructor can intervene.



### Limitation of devices and organization of experiments

In the course of training, it can perfectly well happen that devices or components become damaged as a result of incorrect wiring or excessively high supply voltages. This is where technology now makes it possible to limit the output power of devices for specific experimental setups. This means that sensitive components remain protected. Also, the devices can be placed under central remote control from the instructor's desk. For example, where necessary, a variable voltage supply can be turned into a fixed voltage source.



Once they have been created, experimental setups can be selected at any time and sent to the devices in the room. New setups can be created quickly and transparently and distributed through the network to the devices.



# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Training

Measuring like a professional

Why not use the same tools for training as those used by a professional? Modern-day development laboratories employ networked devices and systems. Automated series of measurements and circuit analyses, combined with continuous documentation, facilitate the functional checking of components and circuits.

Direct input of setpoint values, graphic display of actual values and programming of voltage curves are just a few of the highlights offered by the Elabo software. All networked devices can be represented and controlled by dragging and dropping on the monitor.

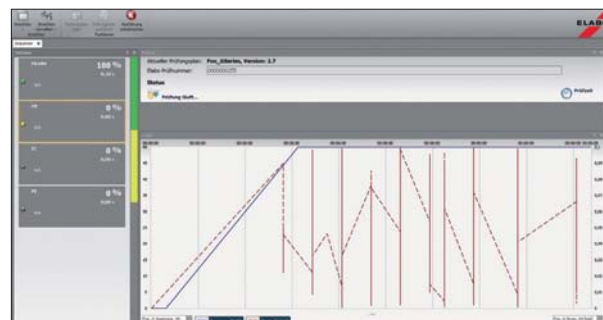


Structured preparation and documentation of measurement sequences

Automated quality assurance with complete documentation provides the guarantee of product quality in industry. With just a few mouse clicks, simple measurement sequences can be generated and automatically executed. The existing devices can be used as measuring devices.



Laboratory experiments for the determination of component characteristics can be easily prepared and executed. The result includes the prepared measurement sequence and the achieved measured values.



# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Training

### Available devices

Elabo offers a wide range of networkable devices.

AC power supplies, 1- and 3-phase

DC-stabilizers, 1x and 2x

Digital multimeters

Function generators

I/O modules



### System environment

The Elabo software is designed for use with Windows 7 and XP operating systems.

The data are stored in an SQL database, from where data can be exported at any time.

### Minimum requirements:

Memory: 1GB

CPU: Pentium 4, 2.8GHz

Graphics card: 128MB GPU memory

### System recommendation:

Memory: Min. 2GB

CPU: Dual Core (Core2Duo with 2.6GHz or Athlon X2 with 2.6GHz)

Graphics card: 256MB GPU non-shared memory graphics card

### Software package

Elabo software package for vocational training.

The package contains the following modules:

- Interactive Window Sequencer
- Multimode Room (instructor's version only)
- Measured value printout
- User administration and configuration

Order number: N2-1E Site license

N2-1L Instructor's license for installation on an instructor's computer

# Elabo Elution® Suite

## Elution® Training



## Highlights

Elabo Elution® Device simplifies the testing of electrical and electronic components used in research and development, production and quality assurance, as well as for service and repair. In addition to measuring electrical parameters, the software can also process digital and analog signals.

### General data

- Scope of delivery: 1 DVD box including Elution® Device, SQL Server Express, operating instructions and online help
- License: single workstation
- Languages: German and English, other languages available on request
- Login: password-protected or as Windows user
- Operation: mouse, touch, with Windows look & feel; multiple monitoring possible
- SQL platform; local database or server solution
- Data export in csv files for further processing
- Programming language: C#



# Elabo Elution® Suite

## Elution® Device

For research and development

- Elabo Elution® Device can reproduce values for you at any time
- The recording function gives you continuous logging of all measured values, without any gaps
- With Elution® Device you can carry out long-term test runs fully automatically
- The measured values are stored in an SQL database, which means that you can transfer all data at any time to other platforms
- Long-term tests and stress testsv
- Clock generator
- Setpoint/actual value comparison in graphs and tables



For production and quality assurance

- With Elabo Elution® you can define a test sequence with chronological processing of test steps that subsequently runs in semi-automatic or fully automatic mode
- As required, you can integrate test instructions, digital images or wait steps into the test sequence
- You can work with product identifiers such as bar codes, etc. and, as a result, you can track the values of a device throughout its entire lifetime

We also offer the Elution® System software package as part of the Elution® Suite for use in production and quality assurance. Please contact us, if necessary, to determine which program is better suited for your needs.

For service and repair

- Elabo Elution® Device can reproduce values for you at any time
- The recording function gives you continuous logging of all measured values, without any gaps
- With Elution® Device you can carry out long-term test runs fully automatically
- The measured values are stored in an SQL database, which means that you can transfer all data at any time to other platforms
- You can work with product identifiers such as bar codes, etc. and, as a result, you can track the values of a device throughout its entire lifetime
- Troubleshooting is simplified by means of predefined test sequences
- Setpoint lists can be programmed for calibration purposes

### Requirements

Operating systems supported: Windows XP, Windows 7, 32 and 64bit

System requirements: 1GB memory, CPU Pentium 4 2.8GHz, graphics card 128MB GPU memory

System recommendations: 2GB memory, Dual Core 2 2.6GHz, graphics card 256MB GPU memory

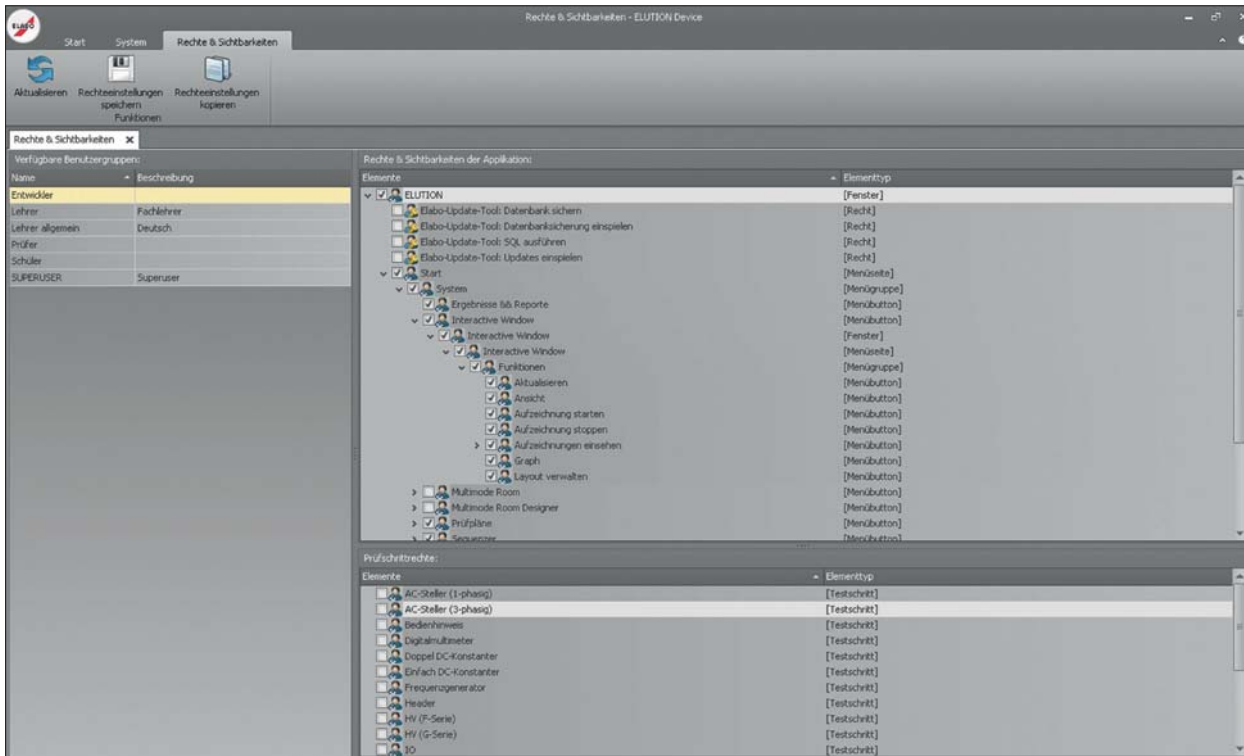
Additional requirements: Devices with Ethernet interfaces, additional equipment licenses, .NET framework must be installed on the computer(s)

# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Device

Specifications

### Module: System



- System administration
- User administration
- Group administration
- Update

Features

1. Fine-tuned granting of user rights
2. User-dependent menu structures
3. Central configuration of all equipment and systems

Functions

- Assignment of names for devices and equipment
- Administration of product types, number ranges
- Administration of licenses
- Determination of network configuration
- Selection of language
- Create users and assign rights to them
- Create user groups, allocate users and assign rights to them

# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Device

### Module: Interactive Window



- Direct operation of devices
- Graphic display
- Logging
- Export function

#### Features

1. Graph scaling freely adjustable
2. Each individual decimal point can be selected and modified
3. All devices viewable at a glance

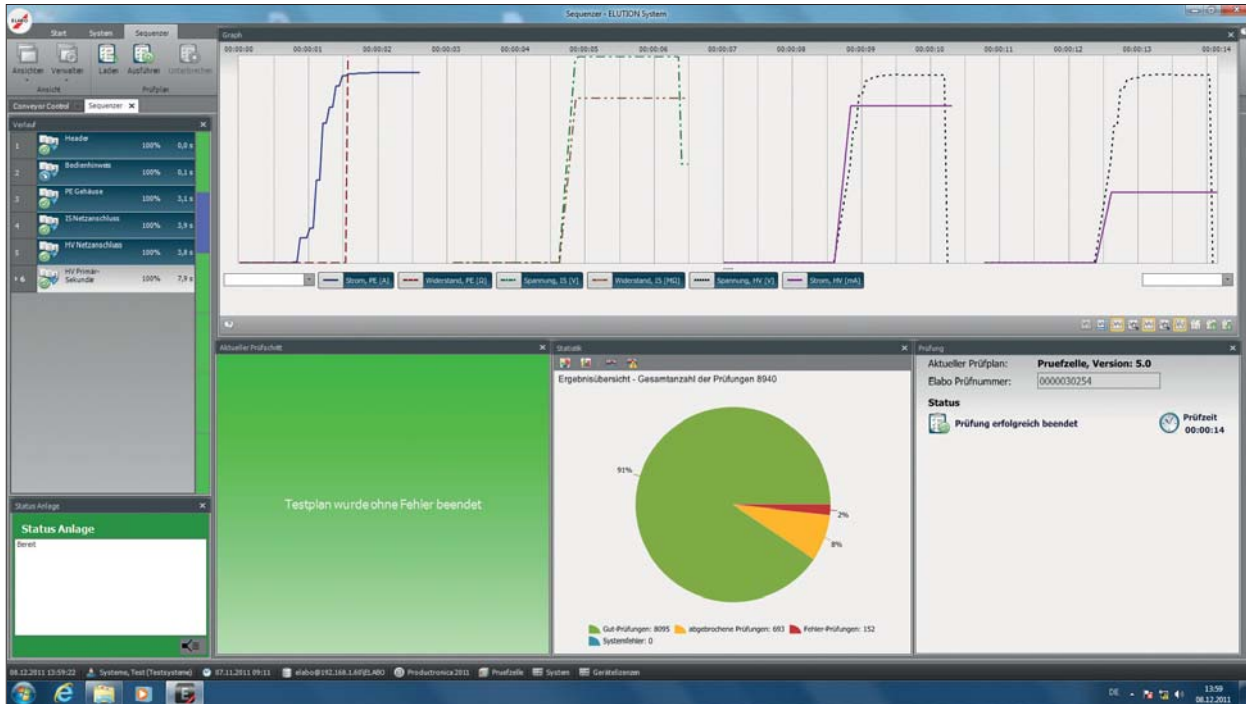
#### Functions

- All active devices displayed
- All measured values displayed in one or more graphs
- Measuring of Delta X and Delta Y values in the graphic display with possibility of directly comparing the time curves
- Data logging function with adjustable measurement rate
- Storage of measured values in an SQL database (manually, automatically)
- On-top function for using individual devices in other applications

# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Device

### Module: Sequencer



- Sequential test sequence
- Statistics
- Graphic display

#### Features

1. Chronological, graphic display of the test sequence
2. Permanent display of the current measured values and limit values
3. Permanent logging of all values and storage in the SQL database
4. Showing of instructions
5. Colored display of history with defect identification

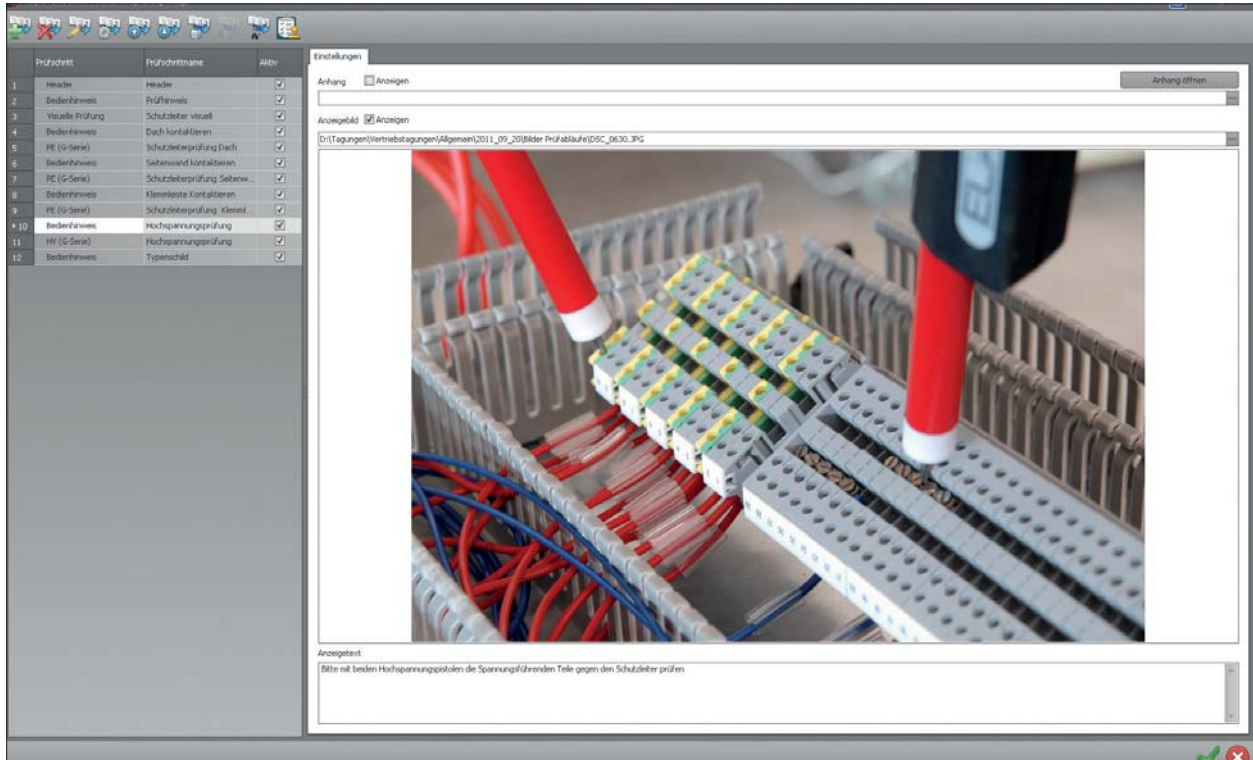
#### Functions

- Selection of test plans (manually, automatically)
- Fully automatic test sequence
- Status and error reports
- Display of all current results
- Identification of test object (manually, bar code, RFID)
- Visualization of all parameters
- Display of all GOOD/FAULT statistics
- Storage of measured values in an SQL database (automatically)

# Elabo Elution® Suite

## Elution® Device

### Module: Test plans



- Preparation of test plans
- Block administration
- Template administration

#### Features

1. Input of test parameters is in some cases graphically supported
2. Definition of polarity/connection to the test object required for the test step
3. Incorporation of images is possible
4. Full-screen display of all test results, also as a chart

#### Functions

- Input of basic settings such as test setup, description part, test object identifiers for automatic selection of a test plan
- Input and parameterization of test steps such as current consumption or required voltage
- Incorporation into parameterization of user instructions/visual test steps/wait steps
- Determination of the sequence of the inputted test steps
- Programming of voltage steps and voltage curves for circuit analysis
- Programming of automated measurement routines

# Elabo Elution<sup>®</sup> Suite

## Elution<sup>®</sup> Device

### Module: Results & Reports

Prüfnummer	Prüfplanname	Version	Ergebnis	Startdatum	Enddatum	Prüfzeit [s]	Produkttypnummer	Kundenseriennummer	Ergebnisstatus
0000011642	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 14:31:03	18.11.2011 14:37:49	406			Cancelled
0000011149	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 12:24:23	18.11.2011 14:31:02	7599			Cancelled
0000011143	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 12:23:52	18.11.2011 12:24:15	23			Cancelled
0000011028	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 11:53:20	18.11.2011 12:23:06	1786			Cancelled
0000010985	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 11:26:20	18.11.2011 11:53:17	1617			Cancelled
0000010984	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 11:24:17	18.11.2011 11:25:19	62			Cancelled
0000010983	Leistungselektronik_S...	5.4	Fehler	18.11.2011 11:22:56	18.11.2011 11:23:59	63			Failed
0000010788	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 10:49:38	18.11.2011 11:22:50	1992			Cancelled
0000010780	Leistungselektronik_S...	5.4	Gut	18.11.2011 10:17:28	18.11.2011 10:19:13	105			Passed
0000010613	Leistungselektronik_S...	5.4	Gut	18.11.2011 09:34:23	18.11.2011 09:35:22	59			Passed
0000010544	Leistungselektronik_S...	5.4	abgebrochen	18.11.2011 09:05:38	18.11.2011 09:34:17	1719			Cancelled
0000010478	Leistungselektronik_S...	5.4	Gut	18.11.2011 08:27:45	18.11.2011 08:29:03	78			Passed
0000010318	Leistungselektronik_S...	5.4	abgebrochen	17.11.2011 17:00:08	17.11.2011 17:37:19	2231			Cancelled
0000010317	Leistungselektronik_S...	5.4	Gut	17.11.2011 16:58:23	17.11.2011 16:59:36	73			Passed
0000010294	Leistungselektronik_S...	5.4	Gut	17.11.2011 16:46:18	17.11.2011 16:58:11	713			Passed
0000010283	Leistungselektronik_S...	5.4	Fehler	17.11.2011 16:43:06	17.11.2011 16:46:05	179			Failed
0000010240	Leistungselektronik_S...	5.4	abgebrochen	17.11.2011 16:32:35	17.11.2011 16:43:03	628			Cancelled
0000009255	Leistungselektronik_S...	5.4	Gut	17.11.2011 12:09:04	17.11.2011 12:10:07	63			Passed
0000008430	Leistungselektronik_S...	5.4	abgebrochen	16.11.2011 17:53:03	16.11.2011 17:58:49	346			Cancelled
0000008421	Leistungselektronik_S...	5.4	abgebrochen	16.11.2011 17:50:58	16.11.2011 17:52:42	104			Cancelled
0000008384	Leistungselektronik_S...	5.4	Gut	16.11.2011 17:47:55	16.11.2011 17:50:31	156			Passed
0000008377	Leistungselektronik_S...	5.4	Gut	16.11.2011 17:39:44	16.11.2011 17:41:03	79			Passed
0000008349	Leistungselektronik_S...	5.4	Gut	16.11.2011 17:32:57	16.11.2011 17:34:29	92			Passed
0000007605	Leistungselektronik_S...	5.4	Gut	16.11.2011 14:21:10	16.11.2011 15:43:35	4945			Passed
0000007414	Leistungselektronik_S...	5.4	abgebrochen	16.11.2011 13:32:20	16.11.2011 14:21:06	2926			Cancelled
0000006956	Leistungselektronik_S...	5.4	abgebrochen	16.11.2011 11:41:45	16.11.2011 13:20:49	5944			Cancelled
0000006883	Leistungselektronik_S...	5.4	Fehler	16.11.2011 11:30:58	16.11.2011 11:34:40	222			Failed
0000006868	Leistungselektronik_S...	5.4	Gut	16.11.2011 11:12:39	16.11.2011 11:16:09	210			Passed
0000006785	Leistungselektronik_S...	5.4	abgebrochen	16.11.2011 10:51:10	16.11.2011 11:12:32	1282			Cancelled
0000005699	Leistungselektronik_S...	5.4	Gut	15.11.2011 15:41:22	15.11.2011 15:45:53	271			Passed

- Measured value browser
- Report printout
- Export function

#### Features

1. 3 templates for test logs included
2. Database organized by automatically allocating test numbers, also test plans are provided with titles and comments
3. Timeframe for preparation of statistics can be freely selected

#### Functions

- Subsequent access to all stored test results
- Export of all data, SQL, CSV, text
- Output of setpoint/actual values, test person ID, date stamp, serial number, equipment number
- Preparation of test logs
- Traceability of test results

# Elabo Elution® Suite

## Elution® Device

### Good to know

#### Convenience assured

It's the end of the working day, and you're not quite finished? With Elabo Elution® that's not a problem. When you start up the computer and the software the next day, you will be exactly at the same point where you left off the day before.

#### Usefulness assured

For task A you only need device B? Then simply drag the device onto the desktop, close the software and continue working conveniently and easily via remote control. This is ideal if you have other programs open or if you just want to avoid having to adjust the speed all the time.

#### Security assured

Elabo devices are frequently connected not just to each other but also to other devices, systems and programs. To make sure that you do not lose any data even in an emergency, we have incorporated numerous security mechanisms. Even in the event of a total outage, you can rest assured that your test results will not be lost and you can continue to work locally with peace of mind.

#### Functionality assured

Elabo not only offers you all the functions of your devices via the software but goes even further when it comes to power supply panels/power supply systems/variable power supply units. Here, for example, you also have arbitrary functionality and pre-settings.

#### Order number for package

Software packages Elution® Device N2-1A with the modules:

- Interactive Window Sequencer
- Test plans
- Results & reports
- System

#### Order number for individual device drivers

Device driver for Smart DC	N2-5A	
Device driver for AC source	N2-5D	
Device driver for digital multimeter	N2-5G	
Device driver for frequency generator	N2-5N	
Device driver for BestPerformance	N2-7A	HV device
Device driver for BestPerformance	N2-7B	combi-tester
Device driver for HighPerformance	N2-7D	HV device
Device driver for HighPerformance	N2-7E	combi-tester