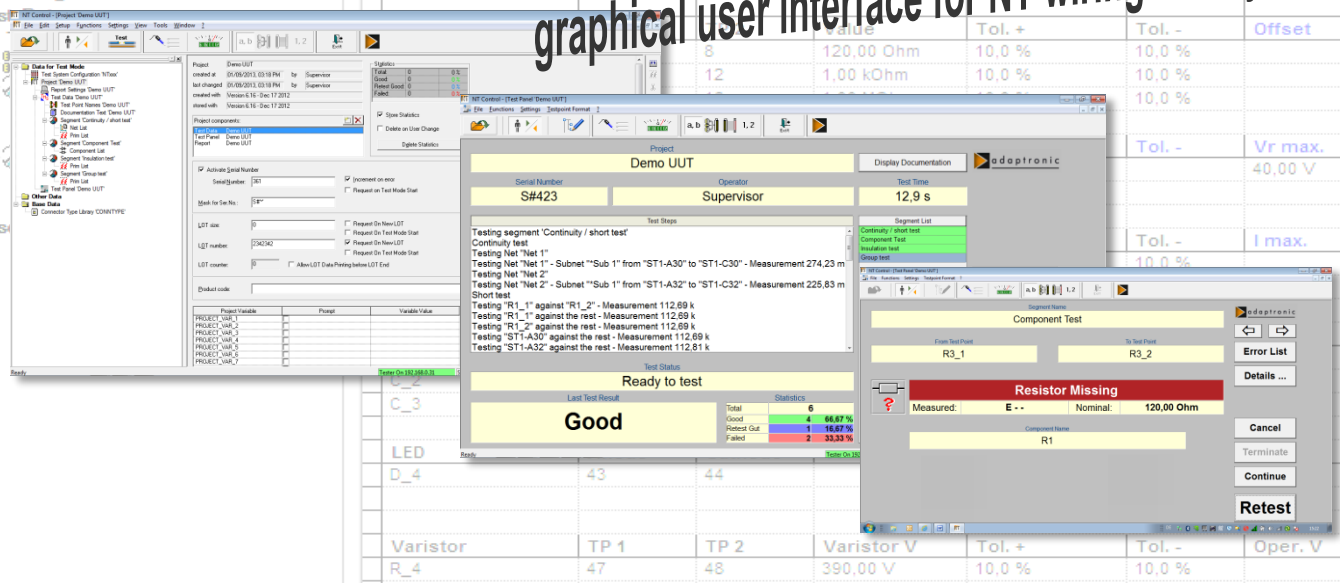


File Edit Setup View Window ?

NT Control

graphical user interface for NT wiring test systems



The screenshot displays the NT Control software interface. It includes a main window with a project tree on the left, a central test configuration area, and a test result dialog box. The dialog box shows a 'Ready to test' status with a 'Good' result. A detailed test log is visible, listing various test segments and their results. A 'Resistor Missing' error is highlighted in red, with a 'Retest' button. The background shows a test table with columns for component name, pin numbers, and electrical values.

Component	TP 1	TP 2	Value	Tol. +	Tol. -	Oper. V
LED						
D_4	43	44				
Varistor						
R_4	47	48	390.00 V	10.0 %	10.0 %	

The test systems of the NT xxx series are predestined for most application-specific test tasks in the wiring, back panel and function test area and are operated and programmed with the graphic user interface **NT Control**.

The control software **NT Control** is already installed more than thousand times on PC systems under Windows® and is at present the most modern and most flexible user interface for wiring test systems.

Test of wirings and assemblies

- ▶ Comfortable testing and programming environment for extensive and different test applications
- ▶ Significant error list and single error display at faults in the UUT
- ▶ Integrated multimeter and pin number functions
- ▶ Basic engine for free programming of special test procedures
- ▶ Integrated List & Label editor for the free design of report and label layouts
- ▶ Importers and interpreters for using existing test programs of third-party systems available
- ▶ Converter for the generation of test data from CAD data available

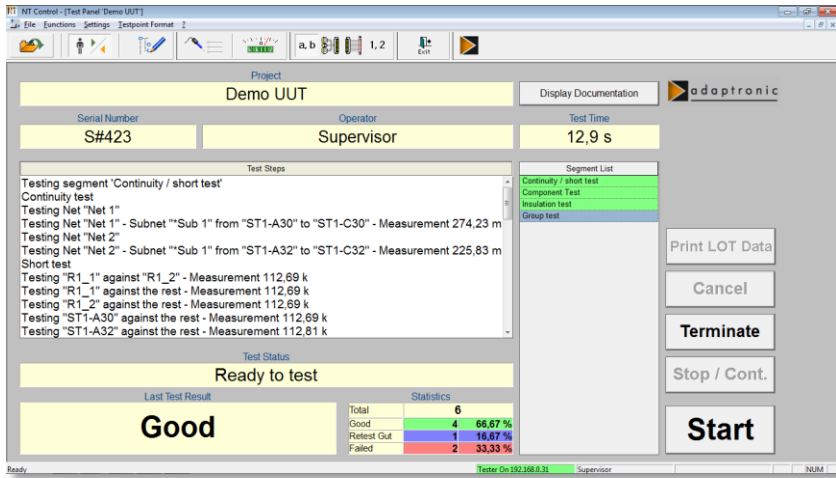
Specialized software variants

NT Control offers you simplification and rationalization at the generation and the management of test programs for adaptronic test systems, covering the following areas:

- ▶ **CT** - cable test
- ▶ **CX** - cable test with intelligent adapter cables or interface devices
- ▶ **TT** - test table applications and
- ▶ **DT** - direct test for backpanels



Testing



The operating within the test mode is managed via buttons which can be activated with mouse-click or with the touch function of a touch screen. Additional functions like entries of serial numbers, lot size, operators name etc. will be carried out with the keyboard or optional with a scanner, supported by **NT Control**.

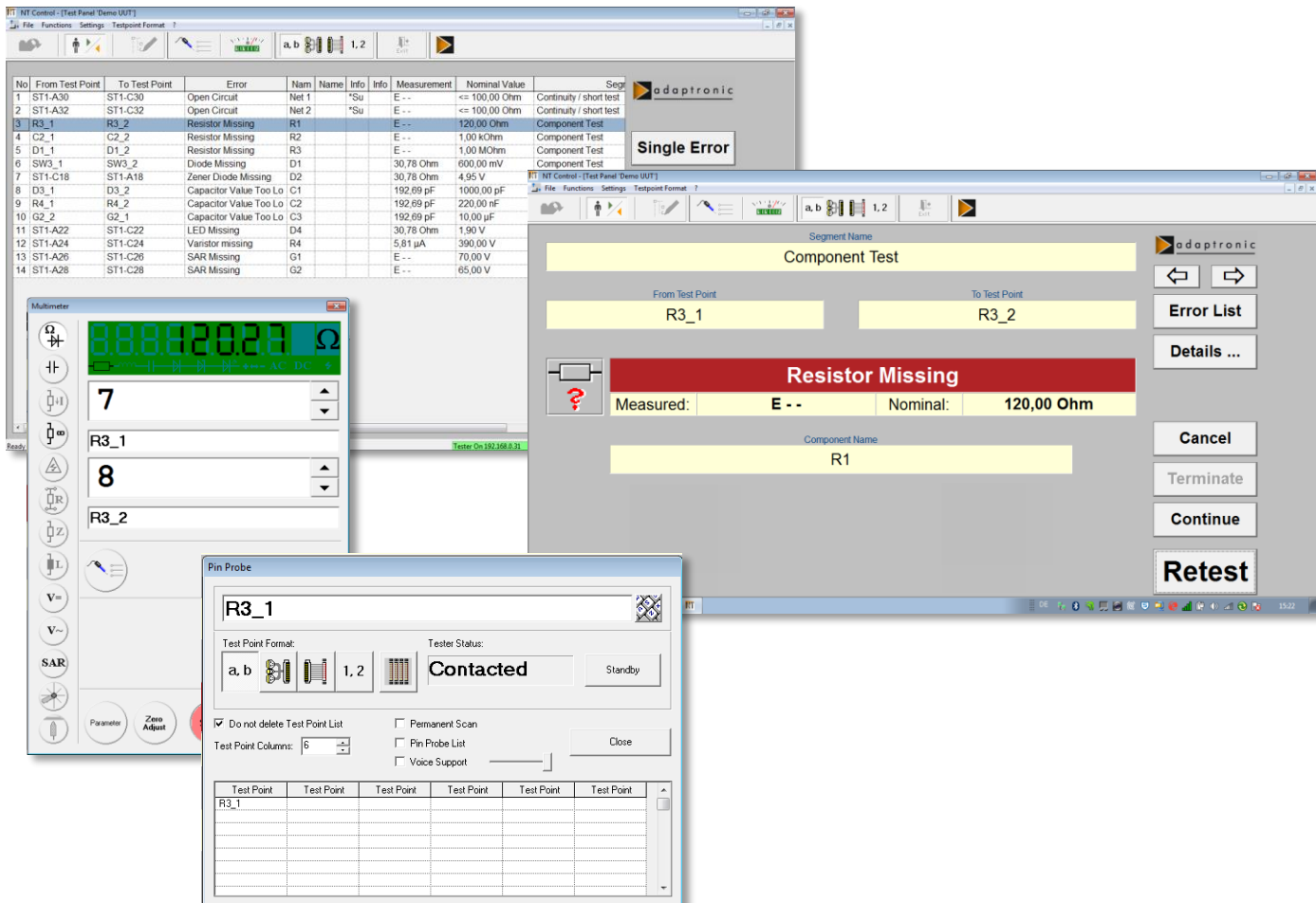
The outstanding possibilities for the visualization of test procedures guarantee a reliable and comfortable handling of the test system.

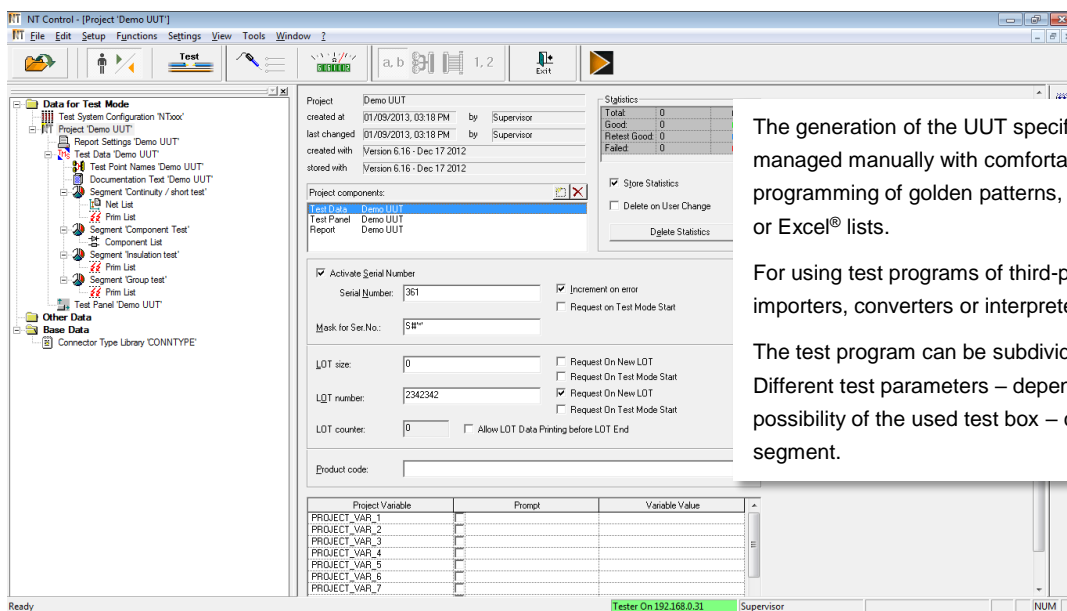
The user interface can be adjusted easily to special requirements according to presentation and test procedure control.

The test results will be evaluated statistically and visualized in the test panel. During the test detected UUT faults will be listed. Additional information to each error - type of error, affected test points, measured values etc. - can be easily read in the single error display.

Beside this **NT Control** offers the multimeter function for specific single measurements.

With the pin number function test points can be easily identified at the UUT.



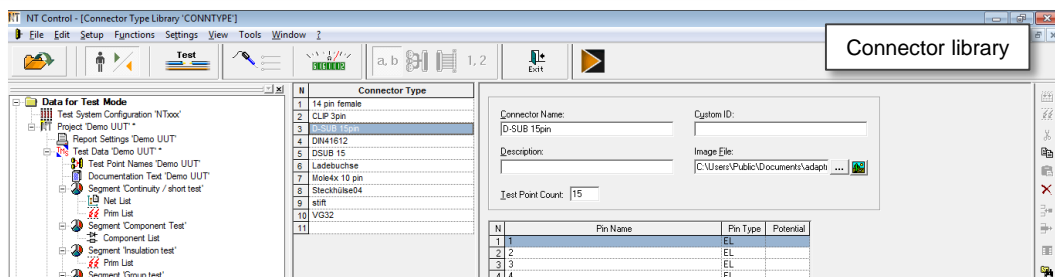


The generation of the UUT specific test program can be managed manually with comfortable editors, by auto-programming of golden patterns, by takeover of CAD data or Excel® lists.

For using test programs of third-party systems a number of importers, converters or interpreters are available.

The test program can be subdivided into several segments. Different test parameters – depending on the technical possibility of the used test box – can be associated to each segment.

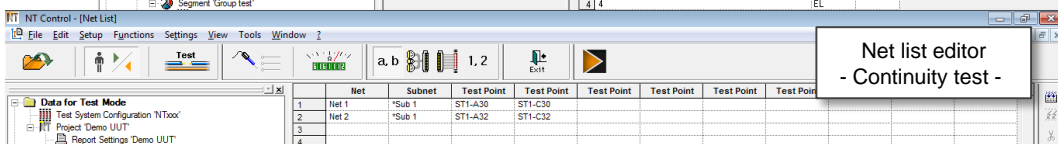
Project Variable	Prompt	Variable Value
PROJECT_VAR_1		
PROJECT_VAR_2		
PROJECT_VAR_3		
PROJECT_VAR_4		
PROJECT_VAR_5		
PROJECT_VAR_6		
PROJECT_VAR_7		



Connector library

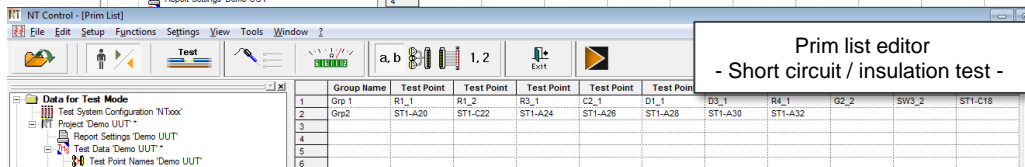
Connector Name: D-SUB 15pin
 Custom ID:
 Description:
 Image File: C:\Users\Public\Documents\adapth ...
 Test Point Count: 15

N	Pin Name	Pin Type	Potential
1	1	EL	
2	2	EL	
3	3	EL	
4	4	EL	



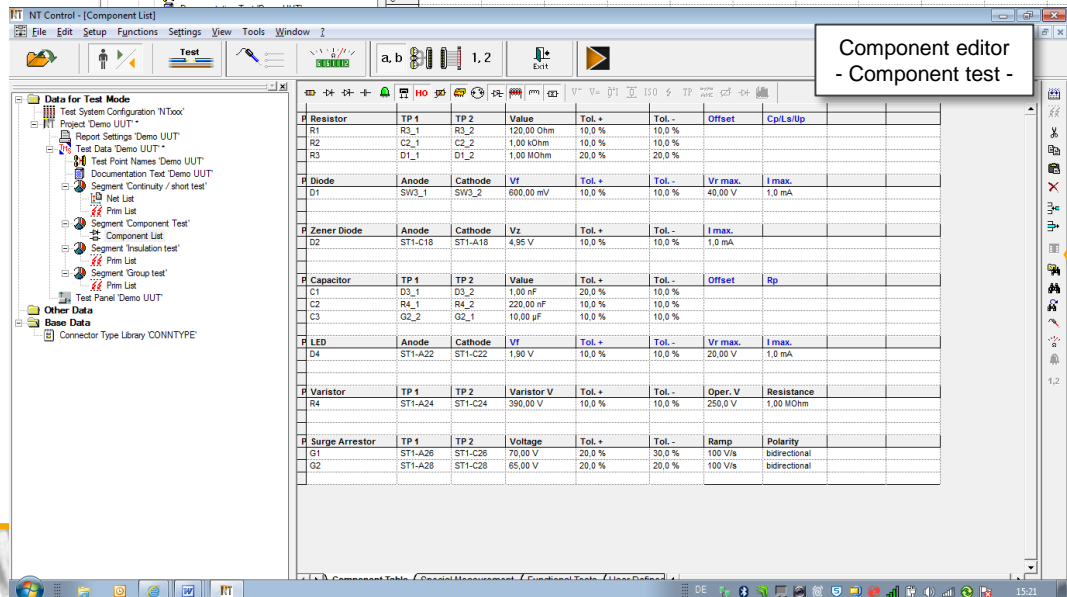
Net list editor - Continuity test -

Net	Subnet	Test Point	Test Point	Test Point	Test Point	Test Point	Test Point
1	Net 1	Sub 1	ST1-A30	ST1-C30			
2	Net 2	Sub 1	ST1-A32	ST1-C32			
3							
4							



Prim list editor - Short circuit / insulation test -

Group Name	Test Point	Test Point	Test Point	Test Point	Test Point	Test Point	Test Point
1	Grp 1	R1_1	R1_2	R3_1	C2_1	D1_1	D3_1
2	Grp 2	ST1-A20	ST1-C22	ST1-A24	ST1-A26	ST1-A28	ST1-A30
3							
4							
5							
6							



Component editor - Component test -

Component	TP 1	TP 2	Value	Tol. +	Tol. -	Offset	CptsUp
R Resistor	R3_1	R3_2	120.00 Ohm	10.0 %	10.0 %	Offset	CptsUp
R2	C2_1	C2_2	1.00 kOhm	10.0 %	10.0 %		
R3	D1_1	D1_2	1.00 MOhm	20.0 %	20.0 %		
D Diode	Anode	Cathode	Vf	Tol. +	Tol. -	Vr max.	I max.
D1	SW3_1	SW3_2	600.00 mV	10.0 %	10.0 %	40.00 V	1.0 mA
Z Zener Diode	Anode	Cathode	Vz	Tol. +	Tol. -	I max.	
D2	ST1-C18	ST1-A18	4.95 V	10.0 %	10.0 %	1.0 mA	
C Capacitor	TP 1	TP 2	Value	Tol. +	Tol. -	Offset	Rp
C1	D3_1	D3_2	1.00 nF	20.0 %	10.0 %	Offset	Rp
C2	R4_1	R4_2	220.00 nF	10.0 %	10.0 %		
C3	G2_2	G2_1	10.00 uF	10.0 %	10.0 %		
L LED	Anode	Cathode	Vf	Tol. +	Tol. -	Vr max.	I max.
D4	ST1-A22	ST1-C22	1.90 V	10.0 %	10.0 %	20.00 V	1.0 mA
V Varistor	TP 1	TP 2	Varistor V	Tol. +	Tol. -	Oper. V	Resistance
R4	ST1-A24	ST1-C24	350.00 V	10.0 %	10.0 %	250.0 V	1.00 MOhm
S Surge Arrestor	TP 1	TP 2	Voltage	Tol. +	Tol. -	Ramp	Polarity
G1	ST1-A26	ST1-C26	70.00 V	20.0 %	20.0 %	100 Vis	bidirectional
G2	ST1-A28	ST1-C28	65.00 V	20.0 %	20.0 %	100 Vis	bidirectional

Tool bar with editing functions within all editors

NT Control

Flexible testing

- ▶ Individual adjustment of the user interface for the test mode via graphical editor
- ▶ Diverse test panel samples, e.g. for different monitor resolutions, pre-installed
- ▶ Statistic function, inclusion of serial number and lot size
- ▶ Report and label printing, designed via editors, several samples pre-installed
- ▶ Test data output into file, e.g. for external evaluation
- ▶ Display of errors in a list or as single errors

Comfortable editing of:

- ▶ Continuity tests (nets or point to point connections)
- ▶ Short circuit and insulation tests (also as group test, depending on the hardware)
- ▶ Component tests (resistors, diodes, Zener-diodes, capacitors, LEDs, switches, high-ohmic devices, varistors, active / passive bus terminators, surge arrestors, suppressor diodes, inductors, impedances, magnet single-wire test etc.)
- ▶ Test point naming with 32 characters in different formats, direct or connector specific
- ▶ Documentation texts according to QM directives
- ▶ Connector, adapter or test module libraries depending on the variant
- ▶ Test system configurations

Comfortable management by:

- ▶ Subdivision of the test procedure into single test steps (segments)
 - ▶ different parameter setting for each segment
 - ▶ user defined test order
 - ▶ user messages
- ▶ 32-character test program names and test program groups
- ▶ Free switching between the different test point formats within the editor
- ▶ Test table support
- ▶ Mixing of program parts from several test programs
- ▶ Check function for plausibility of the data
- ▶ Information about number of the used test points, number of nets, number of test points each net and number of components
- ▶ Optional import filter for Cap-H, IVIS- and many other CAD data formats
- ▶ Interpreter for existing test programs of third-party systems

System requirements:

- ▶ PC with Microsoft Windows® 7 Pro up to Windows® 10 Pro (country variants German or English)