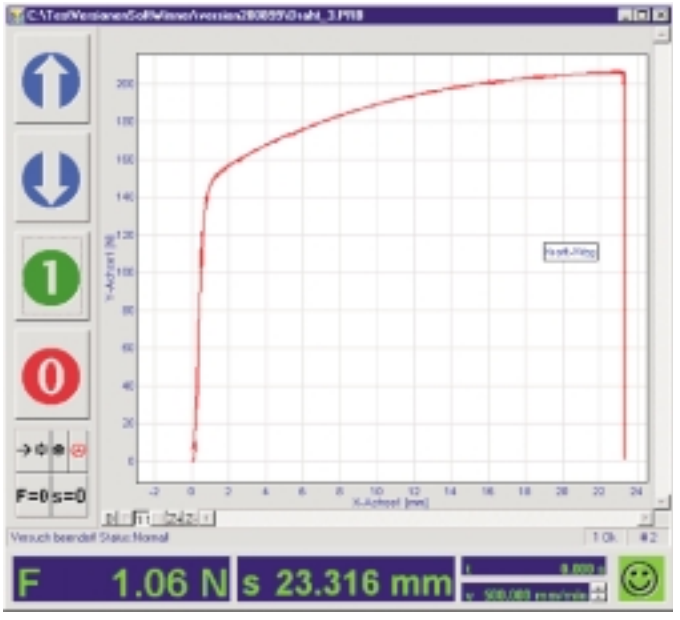
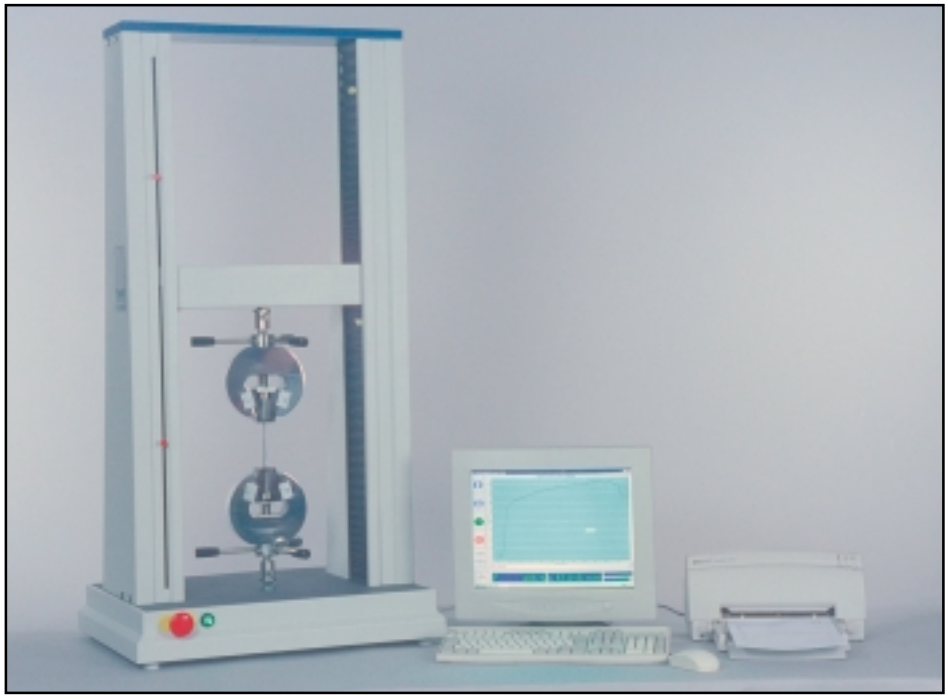
TesT



TesT Winner



Model 112.H universal testing machine

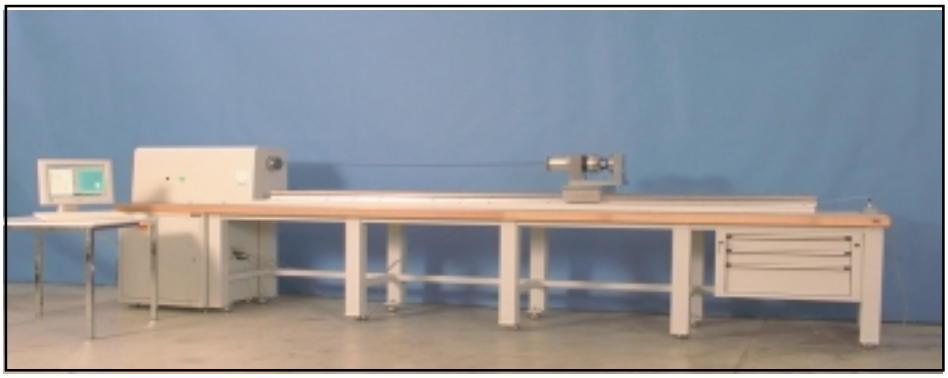
TesT software is used to control testing machines, to register measured values and to carry out evaluations as requested by the customer.

Two software packages are available for use with measured value acquisition equipment.

TesTWinner® 920 and 940 will work only with the **TesT 820 and 840** PC boards. These boards connect directly to the PC bus, eliminating the bottleneck created by a separate interface. Data transfer speed is the internal PC bus speed.

SoftTesT 901 makes it possible to compile measured values using an RS 232 interface for storage in a *.txt file. Once measurements are complete, the data can be evaluated retroactively using Microsoft Excel or a similar program.

SoftTesT 910 provides the option for capturing measured values using an RS 232 interface; it features online tracing of curves for two parameters and later data analysis using macro commands taken from a toolbox. This is a convenient and comprehensive solution for simple applications.



Model 210.2000Nm.H torsion testing machine

TesTWinner® 920 and 940 provides

- Control of material and torsion testing machines, user-programmable with macro commands
- Real-time data capture and online depiction, for single - or multiple parameters
- Comprehensive evaluation either as per accepted standards or according to individual specifications; macro commands; user-programmable
- Generation of logs which the user may edit
- Export and import functions for all data in the ASCII or *.txt format, to and from other programs and databases

Equipment	Electronics	Software 1	Software 2 (alternate)
Universal testing machines Universal testing machines	Type 820 PC board Model 810 evaluation unit	TesTWinner 920 SoftTesT 910	SoftTesT 901
Torsion testing machines Torsion testing machines	Type 820 PC board Model 810 evaluation unit	TesTWinner 920 SoftTesT 910	SoftTesT 901
Screw testing machines	Type 840 PC board	TesTWinner 940	
Force measurement units Force measurement units	Model 801, 803, 830 electr. units Type 820 PC card	SoftTesT 910 TesTWinner 920	SoftTesT 901
Torque measurement units Torque measurement units	Model 801, 803, 830 electr. units Type 820 PC card	SoftTesT 910 TesTWinner 920	SoftTesT 901

SoftTesT 901

Brief description of the software

SoftTesT 901	WIN 3.x WIN 95/98	Registration of measured values or pairs of values in a *.txt file for evaluation in another program such as Microsoft Excel or Lotus

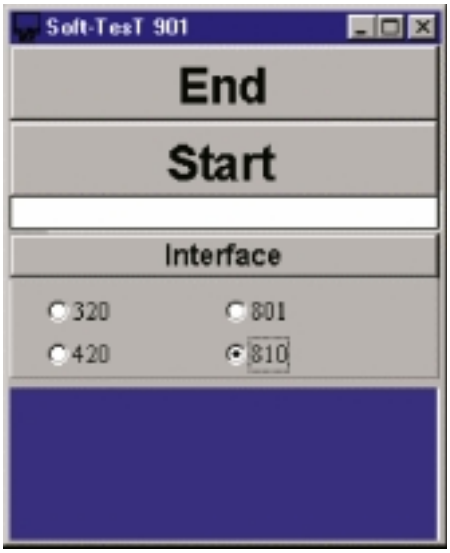
Can be used with **TesT** – model 320, 420, 801, 803, 810 and 830 measurement units:

- ❒ Force measurement
- ❒ Torque measurement
- ❒ Force and path measurement
- ❒ Torque and angle measurement
- ❒ Force and time measurement
- ❒ Torque and time measurement

The software does not provide any curve tracing, evaluation or control functions. It is suitable for exporting data in a *.txt file to any desired directory.

Data can then be further processed with Microsoft Excel, Lotus or other spreadsheet or database programs.

A variety of filters (interface configurations) is available to read in data, matching our Models 320, 420, 801, 803, 810 and 830.



SoftTesT 910

Brief description of the software

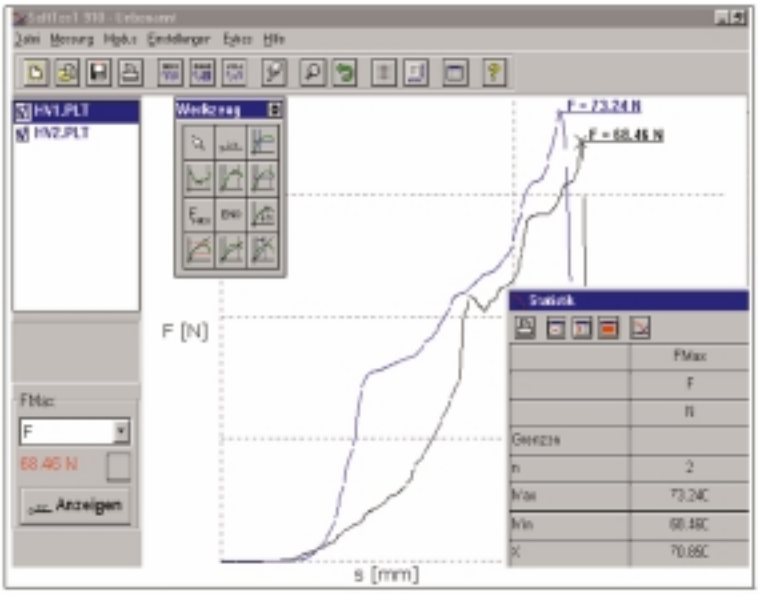
SoftTesT 910	WIN 3.x WIN 95/98	Registration of measured values or pairs of values and online, graphic depiction; evaluation after the trial using macros available in a toolbox; statistics function; data pairs can be imported and exported to a *.txt file for further manipulation using other programs such as Microsoft Excel or Lotus; log print-out. No machine control capabilities.

Data registration and online graphic depiction running under Windows 3.x or Windows 95/98

Evaluation of test results using macros provided in a toolbox. Can be used with Test Model 320, 420, 801, 803, 810 and 830 measurement units:

- ❒ Force measurement
- ❒ Torque measurement
- ❒ Force and path measurement
- ❒ Torque and angle measurement
- ❒ Force and time measurement
- ❒ Torque and time measurement
- ❒ Data import
- ❒ Data export
- ❒ Logging

Several curves with calculations can be superimposed one over the other. The software does not incorporate any control functions.



Brief description of the software

TesTWinner® 920 **TesTWinner® 940**	WIN NT 4.0 WIN 2000 WIN 95/98	Complete control of test machines; data capture, evaluation and statistics. Automation capability with I/O ports. User-programmable test sequences. User-programmable evaluation. Logs with user editing; storage as *.rtf files. Open design of organization, data management. Import and export functions.

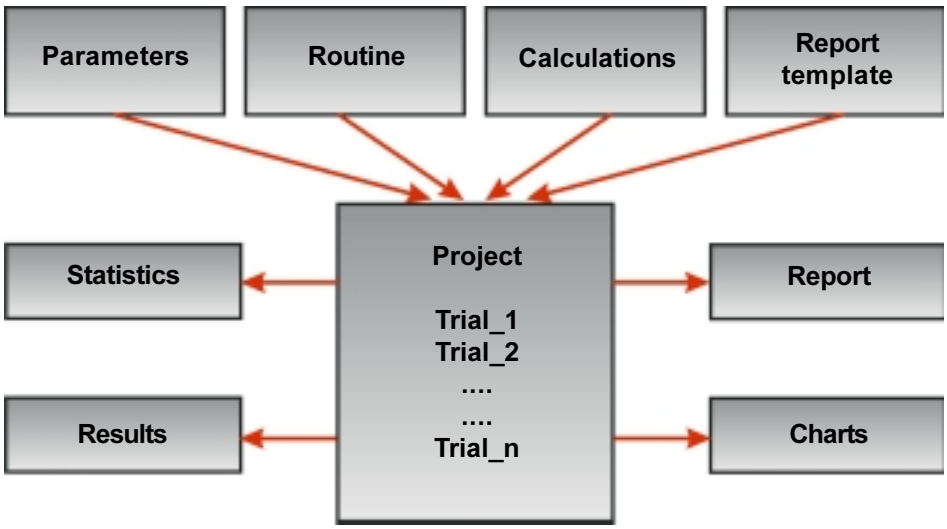
To better understand the program's structure and its use, it is useful to describe the concept of "project" more completely at this point. A "project" is defined to be all the required entries and settings needed to carry out trials with the universal testing machine.

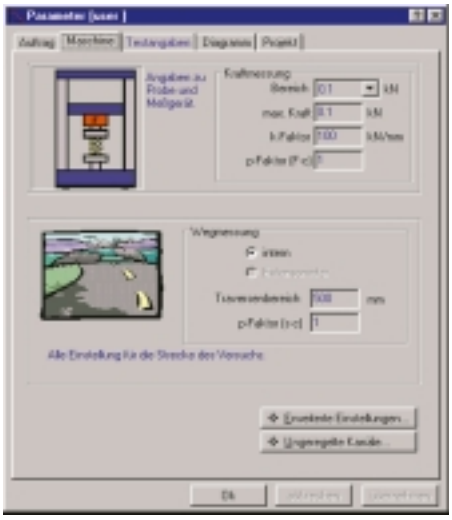
A blank project contains the elements shown in the upper line of the illustration.

These elements make it possible to start trials and/or operational sequences.

If tests have already been carried out and stored, then the project will also show a list of the trials in storage.

Using the measurement data and the predefined instruction lists (calculations, report and chart settings) the measurement data can be combined in a variety of ways.



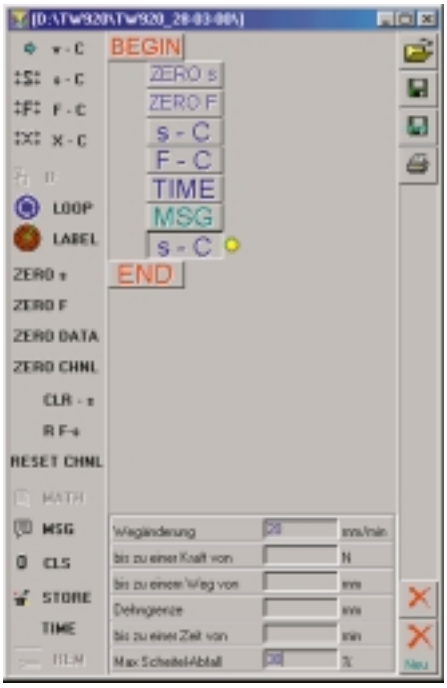


TesTWinner® is the definitive answer to questions in development and quality assurance in regard to

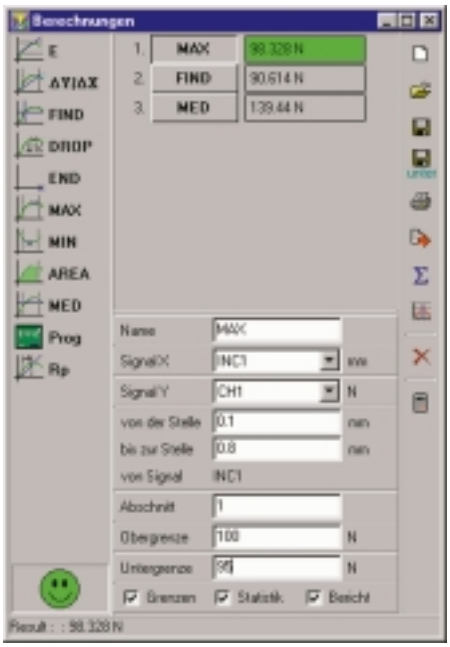
- ❒ User design of test sequences for parts and components
- ❒ Materials testing in accordance with established standards

TesTWinner® 920 satisfies these requirements with user specification of the test sequences and with capabilities for carrying out calculations based on the results.

Fixed programs for standardized tests are additional aids provided in the program.



TesTWinner®



You specify the calculations, the size of the chart, the control buttons in the program and the digital displays.

Operation is as easy as could be:

The programmed sequence in storage is retrieved. You then set up the machine using the UP and DOWN buttons or manual controls (optional), mount the specimens and press the START button.

The results of your calculations will be shown at once.

On your marks!

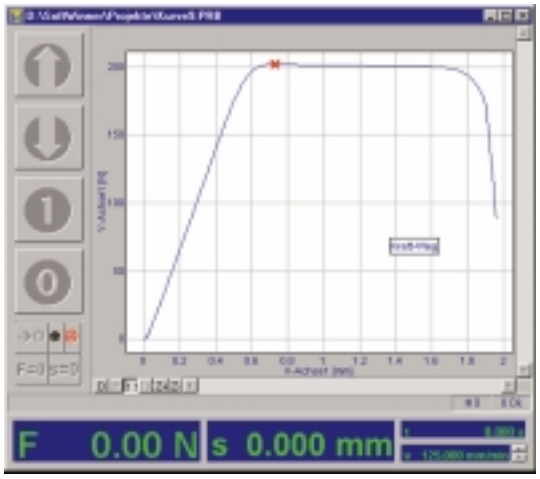
Start:

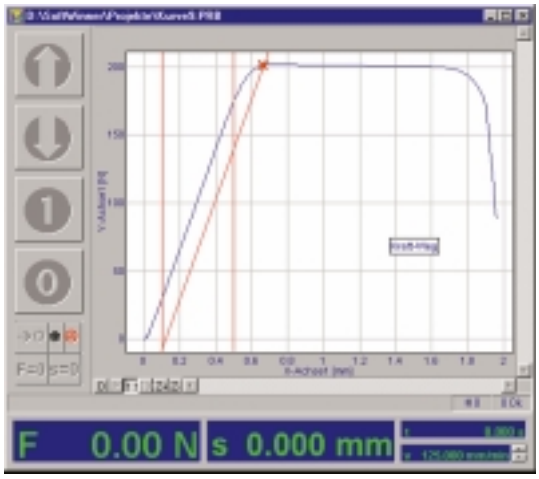
Results:

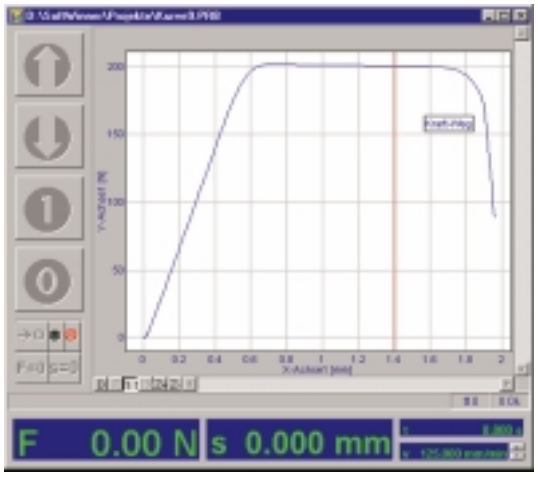
 or 

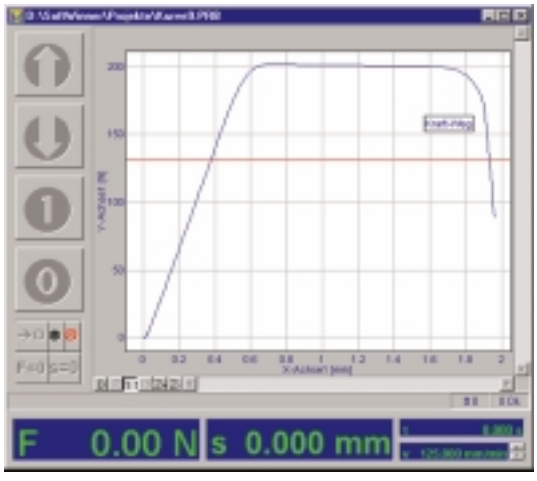
TesTWinner® 920

The results of the calculation you have selected are shown in the test window and in the report. You need only press the chart button to activate this: 









TesT 820

The PC boards and the software have been tested in the most inhospitable operating situations. They function perfectly in

- ❒ Manufacturing operations
- ❒ QA departments
- ❒ Development activities

They also work flawlessly in conjunction with automatic specimen handlers and with an I/O interface to PLCs for 100% testing in rough manufacturing settings.

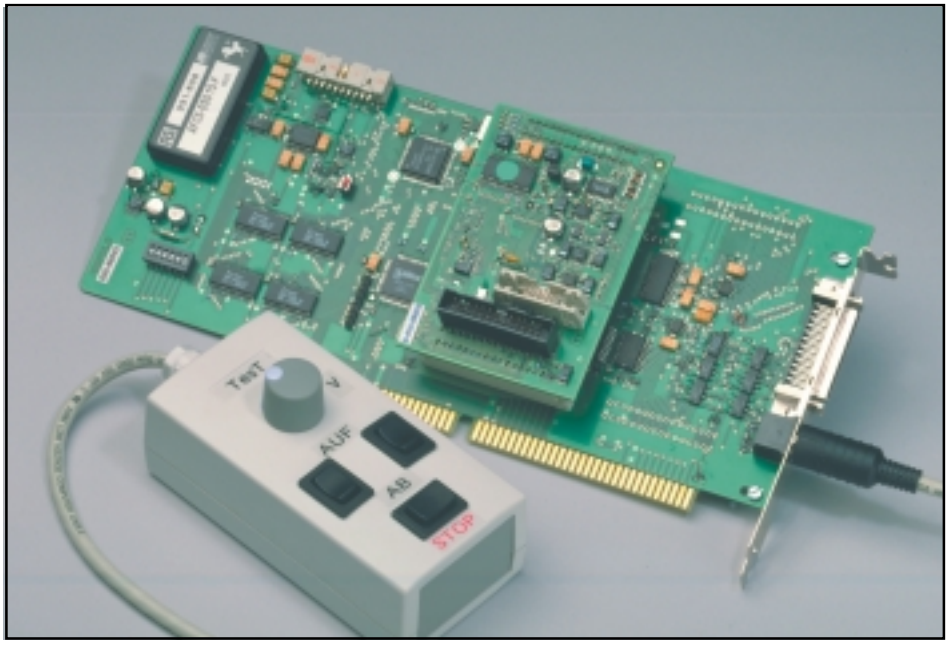
The Type 820/840 PC boards provide up to:

- ❒ Four 16-bit measurement channels for strain gauges at 0 to 5 V DC (0 to 10 V DC)
- ❒ Two incremental channels
- ❒ Eight 10-bit measurement channels

Moreover, data can be read in through an RS 232 interface. Channels not required for the standard force, path and elongation values may be assigned other functions and defined as required.
This lets you measure in addition temperature or pressure, for example, and even to work with these parameters in calculations. Calibration is handled in the machine's hardware, at the preamplifier.

Thanks to the type 820 or 840 card installed at your PC bus, you use one of the world's fastest pieces of measurement equipment – your PC. Slow interfaces are eliminated.

- ❒ Measured value acquisition: 100 kHz
- ❒ Processing in **TesTWinner®** 10 kHz
- ❒ Full control loop 1 kHz



TesT 820 PC card and manual control

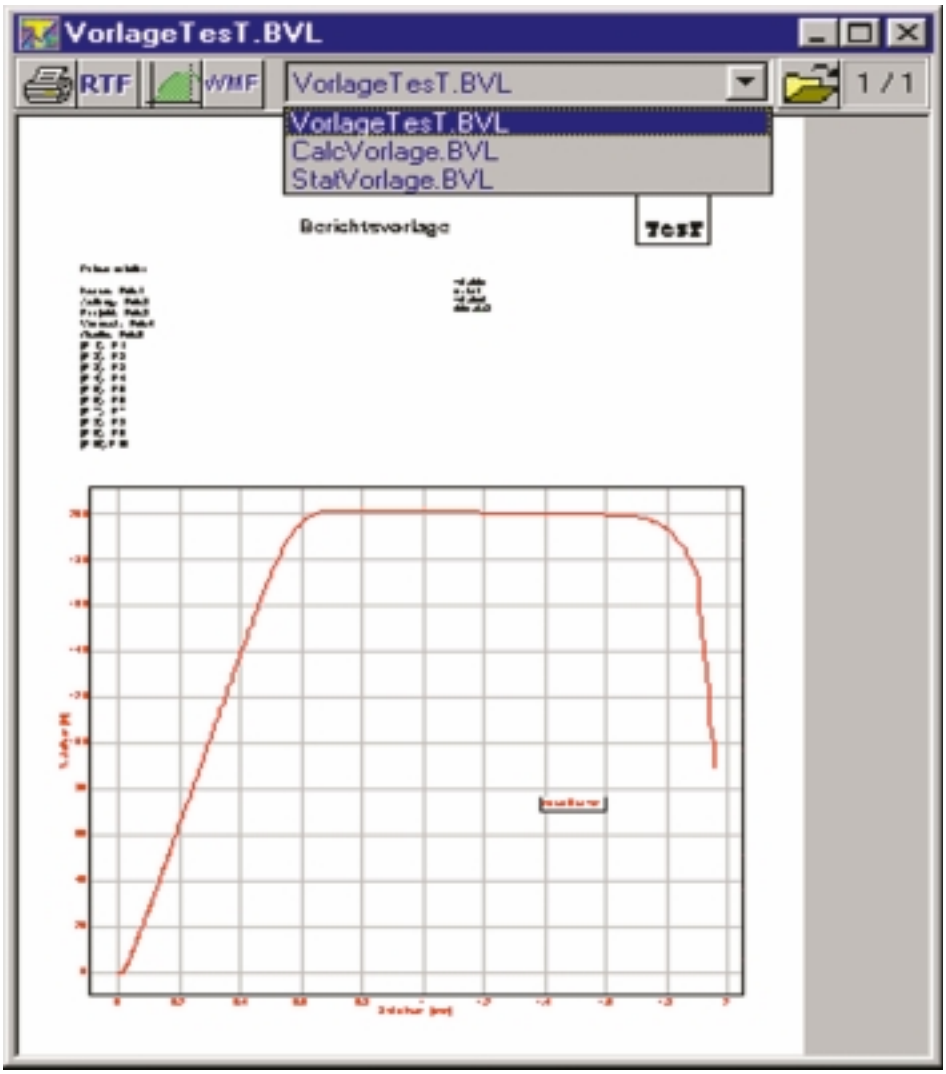
TesTWinner® 920 statistics

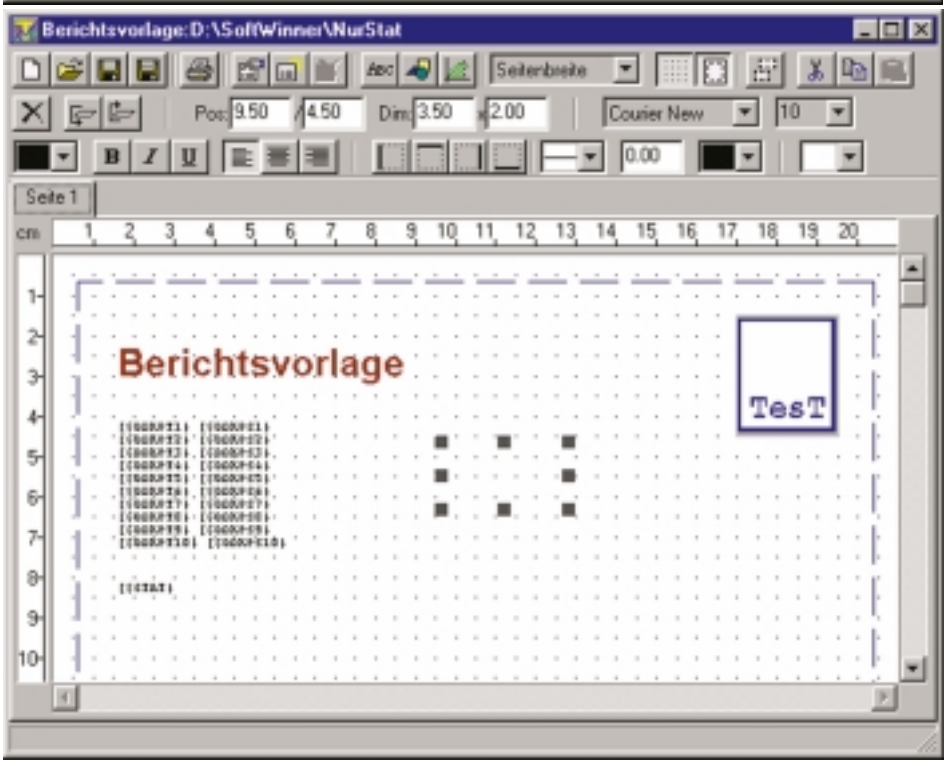
Here you can work automatically and add or remove data.

Statistik

	MAXIMUM	Kraft bei 0.6mm	Mittelwert	Federkonstante
	MAX	FIND	Med	DU/DC
	N	N	N	N/mm
Obergrenzen	155N	1N	70N	9N/mm
Untergrenzen	150N	0N	60N	7N/mm
n	9	9	9	9
Max	153.58	0.88767	70.816	8.8244
Min	83.969	-0.015333	35.572	7.2219
X	145.74	0.19791	65.236	8.0106
D	23.163	0.28205	11.183	0.40088
Feder_1.PRB	153.49	0.045333	69.437	7.9982
Feder_2.PRB	153.58	0.29767	68.533	8.0034
Feder_3.PRB	153.44	0.1345	68.651	8.0108
Feder_4.PRB	153.37	-0.015333	70.816	8.0105
Feder_5.PRB	153.53	0.88767	68.824	7.2219
Feder_6.PRB	153.33	0.2565	68.092	7.9909
Feder_7.PRB	83.969	0.0041667	35.572	8.0369
Feder_8.PRB	153.53	0.1615	70.256	8.8244
Feder_9.PRB	153.36	0.0091667	66.946	7.9983

Nothing is left to speculation.





It's just that easy .....

TesTWinner®

Sophisticated options for designing the reports on your trials, with linkage of your bitmap files, make it possible to satisfy your customer's requirements.
You store your reports in the *.rtf or *.wmf format and then import them into your report, using a Microsoft Office program such as Word or Excel.

Options:

- ❒ Automatic storage of results in database files
- ❒ SPC modules (statistical process control)
- ❒ I/O interface to PLCs to drive automatic specimen feeds or handlers
- ❒ Controlling climate control chambers using EURO regulators
- ❒ Reading in data through the RS 232 interface
- ❒ Controlling automatic extensometers

Model 106.H
universal testing machine

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