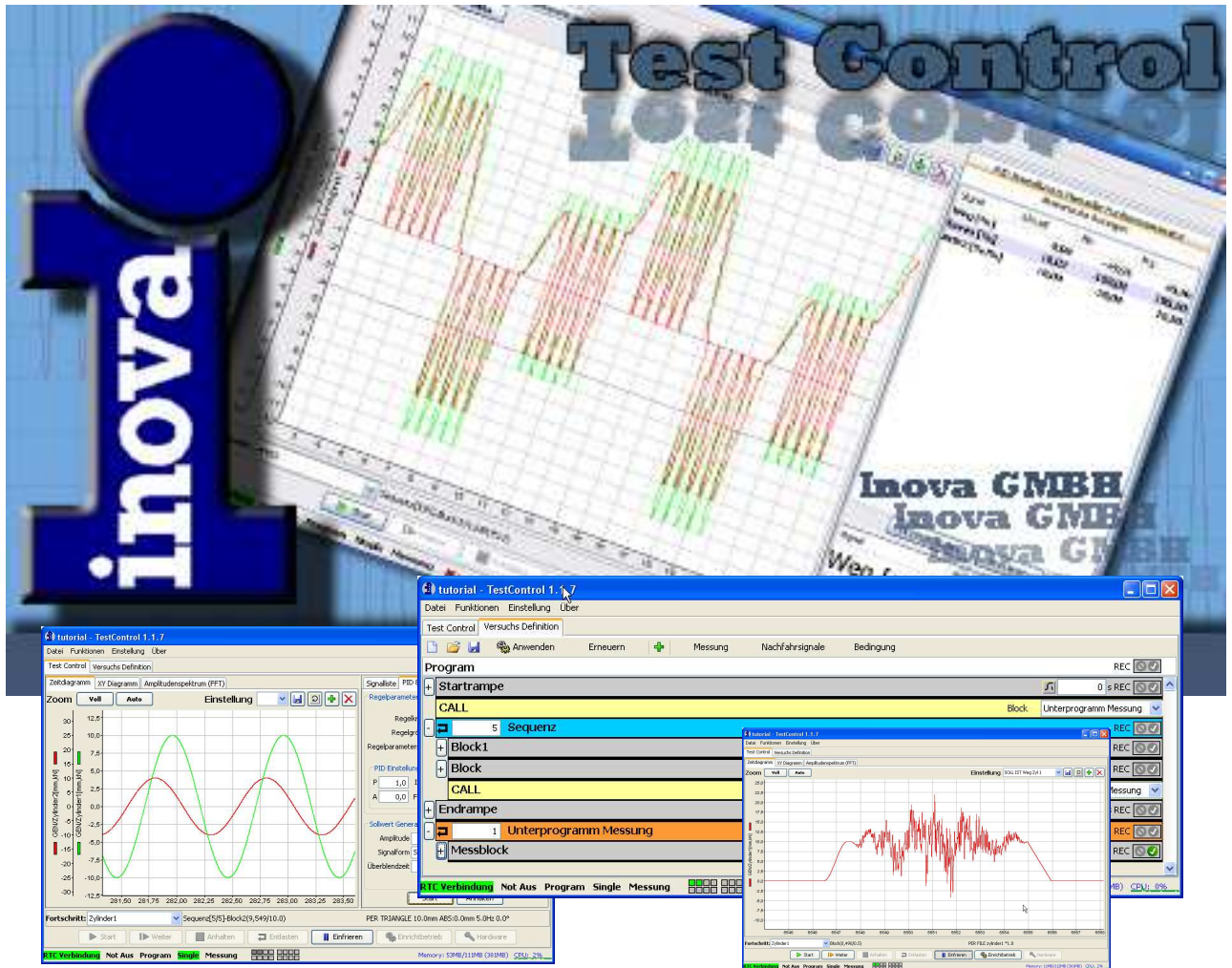


## Testing Software *TestContol*



The Software Test Control serves as the user interface to the digital control System EU3000RTC. TestControl allows to configure the test rig, set up the loading sequence, monitors the progress of your test, handles the data acquisition and finally gives you the result of your tests.

TestControl is very easy to handle. The unique user interface allows to configure test station and set up a test in minutes.

The support of multistation station operation allows you to run several independent tests from one PC.

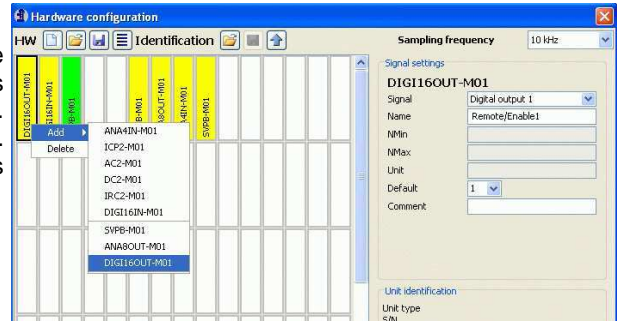
TestControl runs on standard windows PC without special hardware requirements.

TestControl itself will fulfil the most tasks in daily testing. Even replay of time histories, advanced peak control, criteria triggered test run control and comprehensive data acquisition is integrated.

TestControl is extensible by plug-in Modules for extended functions or special test procedures like Damper or Elastomer Testing or service load simulation with iterative transfer function compensation.

## Hardware Configuration

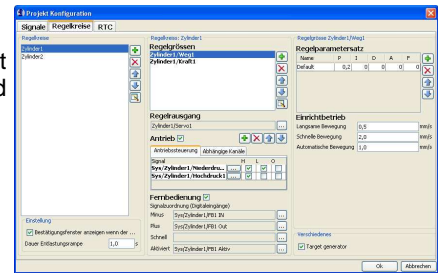
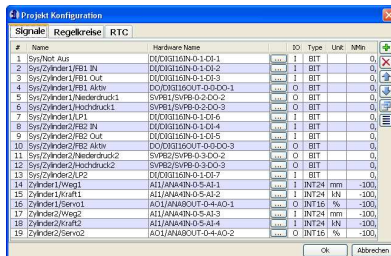
TestControl comes with a easy to use tool to set up you're the installed Hardware. All I/O cards will be shown with its name, type and at the right position in the control rack. Different hardware configuration settings can be managed. A click on the Module symbol allows to change its parameters.



## Test Station Set up

TestControl comes with a easy to use tool to set up your test station.

Just choose the Hardware out of a list what is available. Use the default names or rename the signals as you want. Finally combine your in- and output signals to Control loops.

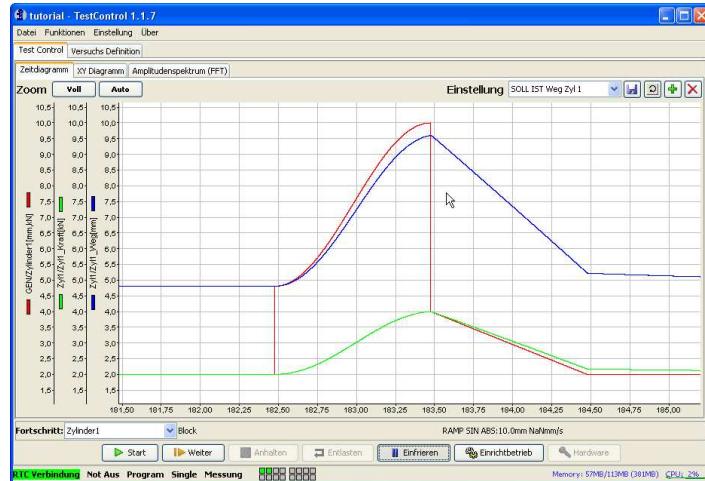


## Set up Control



The set up control window allows to run your drives in an initial position, switch on of the drives and set, activate or reactive limits. Set up control can group cylinders an manage different states of your test rig, e.g. parking, specimen installation or TestRun Position. Within a short view you can recognize the status of all your drives.

## Displays



Graphical or numerical as well as spectral and XY display of the signals is possible. Scope can hold > 32 signals. Each signal can have its own Y-axis or several signals can be combined to a common Y-axis. Unlimited number of Scope setting can be stored and reloaded just by one mouse click.

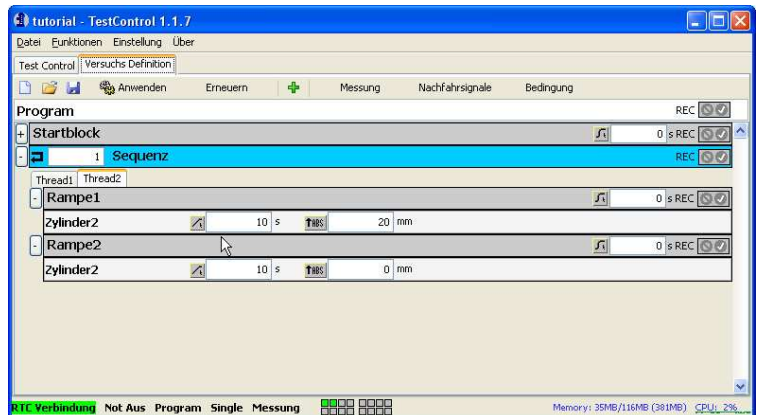
One button controls like X-zoom, Y-zoom or Window zoom makes it easy to analyze signals online. A back button allows to step back in your setting anytime and several stages.

For a better view on the signals it is possible to freeze the scope

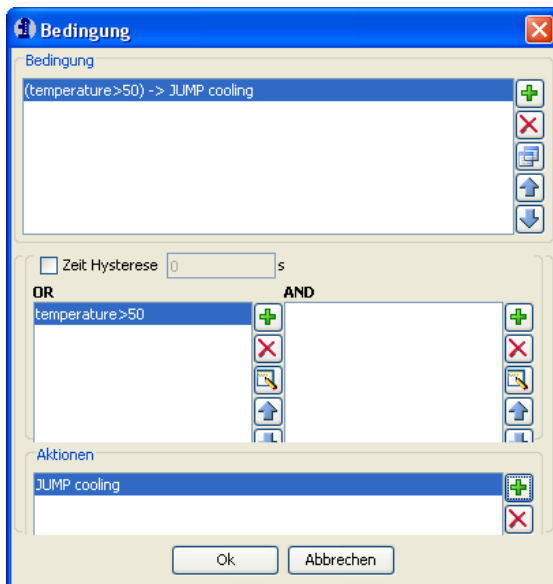
## Block Programming

The unique block programmer or test sequencer is one of key elements of TestControl. It allows to set up complex, multi channel multithreaded test sequences within a graphical editor. The multithreading technology allows to set up e.g. a long term temperature profile for temperature chamber together with multiple blocks for the loading in a asynchrony overall synchronized testing sequence

A delay time of 1 sample (0.1ms) between 2 blocks allows to generate each arbitrary wave form out of ramp and sine segments.

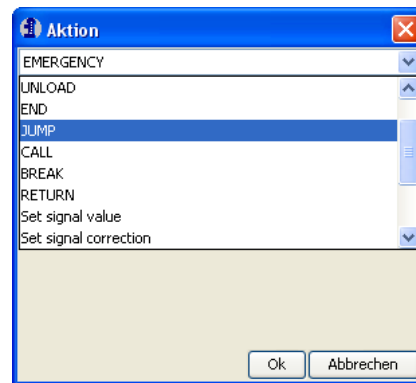


## Criteria's

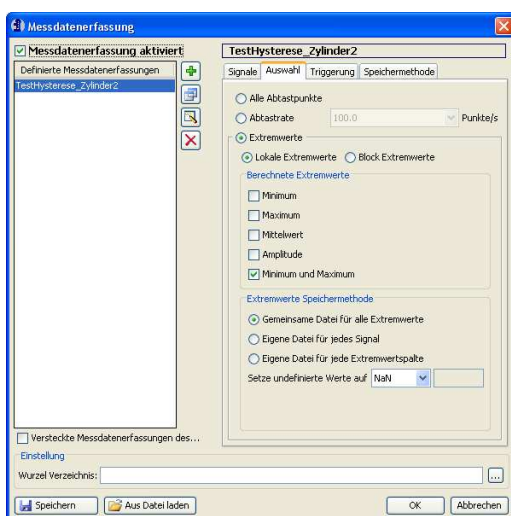


So called criteria's allows a event triggered run of the test with this criteria's it is possible to run a ramp in position control an stop if a defined load is reached or jump to cooling sequence if temperature of a specimen rises a certain level.

Criteria's can be combined by OR and AND function.



## Data Acquisition



Test Control has a comprehensive data acquisition module. Unlimited numbers of data acquisition methods can be defined and used in the test sequence. Several data acquisitions can run parallel. Defined data acquisition can be activated to single blocks or whole sequences.

Data acquisition can run in time equidistant mode with adjustable sample rate for each channel or in extreme value mode so that only max, min mean or amplitude of cycles are stored. Storage can be triggered by time, cycle counter (store all e.g.100cycles 2 cycles) or by any event.

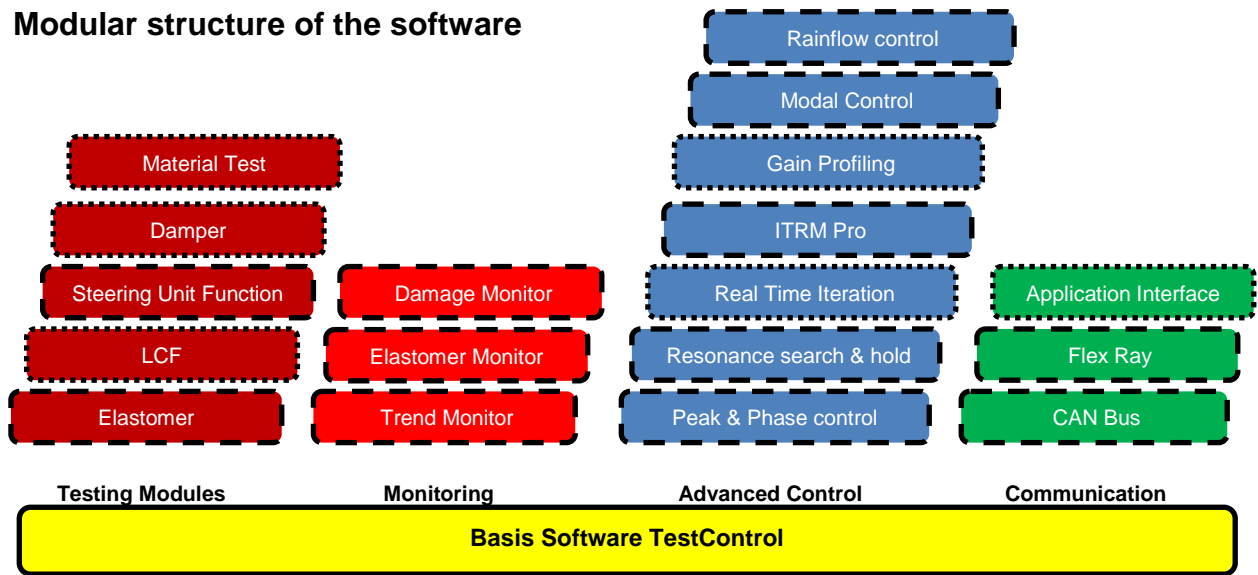
A lot of data formats make it easy to analyze the measured data.

Integrated viewer allows to view, process and export the measured data.



# Inova Testing Systems

## Modular structure of the software



Graphic shows the structure of Test Control and the available add on Modules

## Specifications

### General

Control Channels 32  
Sample Rate 10kHz  
Internal accuracy 64Bit

### Waveforms

Sine  
Triangle  
Rectangle  
Ramps  
Time history replay from files  
Relative or absolute mode of generation  
Any arbitrary wave form by combining segments from waveforms above.

### Sequencer

Multithreading up to 8 parallel threads in one sequence  
Time delay between blocks 1 sample (0.1ms)  
Unlimited No. of Blocks  
Paste and copy of blocks or sequences  
Graphical user Interface  
Criteria controlled run of the test sequence

### Scopes and Meters

Unlimited no. of signals per scope  
Unlimited no. scope settings for save and restore  
Freeze, zoom and back functions  
Meters with actual value, max and min values of the signals  
Cycle counters

### Data acquisition

Unlimited no. of daq definitions  
Parallel run of multiple data acquisitions  
Up to 10kHz sample rate  
Different sample rate for each channel  
Cycle, time or criteria triggering  
Time adequate or extreme mode  
Flexible file and directory generation  
Multiple File formats  
(Diadem, MTS RPC III, IST/Instron RIGSYS, LabExpert 6 and LE-GDT, ASCII)

### Multistation

Control of multiple test stations from one PC  
Sharing of signals between test stations  
Multiple PC for multistation operation (multiuser)

### System Set up

Graphical user interface for system hardware setup  
Graphical representation of the I/O modules according position in the rack  
Settings can be stored or recalled from Files

### Project / Test Station set up

Graphical interface for test station project set up  
Locking of already used resources  
Store and restore of full projects incl. controller settings and test sequence