SysGraph

Available with the modules

ThermoGraph & KaloGraph

A universal graphic tool for all SYSTAG applications with QNX, MIDILAB and FIX/MMI

Modules as complementary packages for thermoanalyses and calorimetry with special mathematical evaluations.
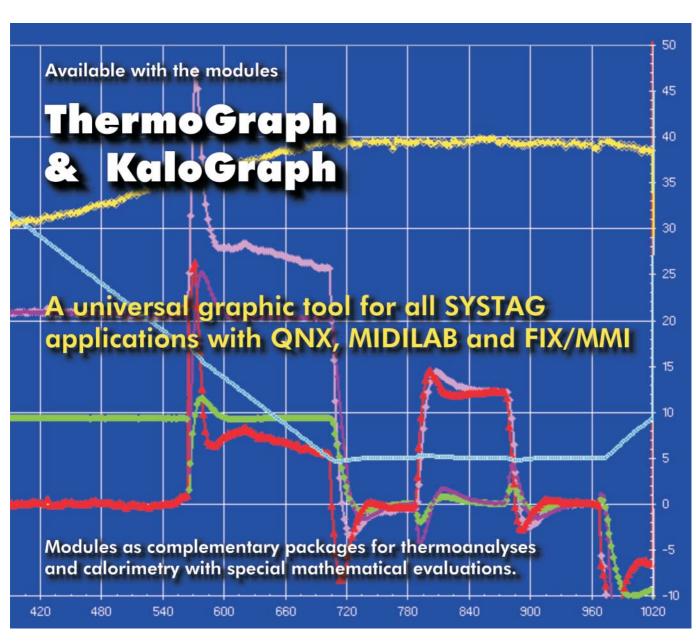
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SysGraph - the flexible graphic package for all new SYSTAG applications

Databank idea

SysGraph is the base for all SYSTAG's new graphic tools for universal processing and data display under Windows, mostly recommended NT 4.0. Data from QNX, MIDIVIEW and FIX are used as raw data. Also DIF data can be processed.

The raw data obtained chronologically are read into a relational databank, so that at a later stage they can always be retrieved and sorted appropriately for all process steps. This gives you a powerful tool on which all additional evaluation modules are based.

Purpose of SysGraph

With SysGraph the user can select his desired diagram and display it immediately without any further time consuming external work. With the help of the automatic scaling (which does not produce broken scales) or with the scaling which can be set manually, each y-axis can be scaled individually. For documentation purposes this gives an unambiguous display on which all scales are visible.

Alternatively, a grid can be placed over the graphic. It is also possible to combine individual y-axes again, in order to gain more space for the graphic.

Obviously, the colour for each curve can be freely allocated and so on ….

Selection of details

In practice each experiment consists of interesting and irrelevant details. All preparation and closing phases do not usually need to be documented. On the other hand it must be possible to retrieve the interesting detail from a reaction and display it on the whole width of the screen.

For this purpose the start and the finish can be marked with the mouse and the curve will be displayed immediately. It is useful to be able to jump back to the previous curve at any time. The newly generated view can again be saved as a new table in the data bank. Consequently from this point on only
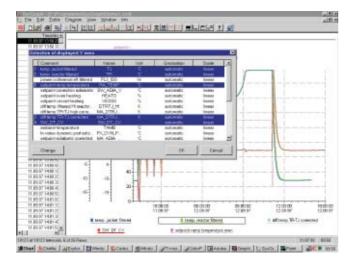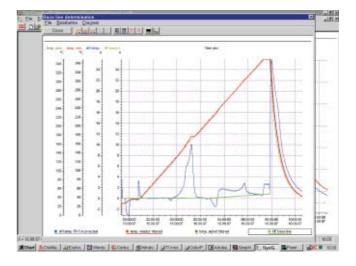
Bild 1 Pull-Down Menü mit Auswah der Variablen

Bild 2 Kurvendarstellung mit manueller Basislinie

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SysGraph – the ideal base for your graphic evaluations

these values are used and therefore a screen in pixels is not simply saved!

Obviously, storing a pure screen display as Windows Meta File (*.wmf) is also possible, so that this screen immediately can be included in any Windows documentation.

Very simple manipulation

With the <Data Import> Pull-down menu data can be read in directly from a project directory. All data are displayed completely, initially with start and finishing date and start time. You can now read in directly everything or just a chronological detail determined by yourself. That's how simple the first step is.

The curves compilation takes place from the <y-Time Graphic> Pull-down menu. The required variable is selected with the mouse and appears in clear text. Simply click on the variable and the curve will be shown. Up to 8 such variables can be displayed in one graph and processed further thanks to the data bank.

Storing views

Each newly generated display can be saved as a view. This also applies to each detail (chronological zooming). Because all values are automatically saved in new tables, they can be retrieved at any time and processed further from this point. All curve data read in at the start are saved within the selected time detail, even the ones that aren't displayed! Consequently, you have a very capable programme which can be used for each type of display and for mathematical processing – also for future extensions – for a long time to come.

Your own calculations

As soon as it becomes necessary to calculate with variables, you can do that in a twinkling of the eye. The most basic calculation modes are available. For example you can calculate with a mouse click the temperature difference of two temperature curves.
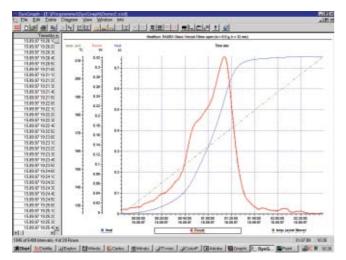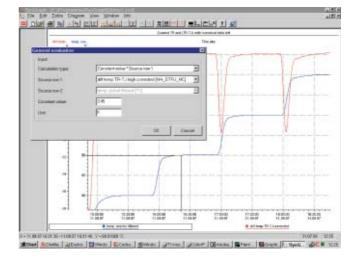
Diagram 3　Power and total heat

Diagram 4　Window for caclulations

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SysGraph for x–y displays and as base for ThermoGraph and KaloGraph

x-y Displays

As soon as it becomes necessary to replace the time axis x by a variable, you can do that immediately. Obviously the previous y-t display is saved and can be retrieved on the screen at any time by pressing a key. With the x–y display certain dependencies can be shown, which are difficult to see in the y–t diagram.

Module ThermoGraph

SysGraph as base contains as an option the module ThermoGraph for thermo analysis. This package is designed for the thermal safety calorimetry. Apart fom the normal y–t displays the temperature rate, the Arrhenius plot, the Time to Maximum Rate (TMR) and the adiabatic increase are displayed. All curves are raw curves and displayed corrected with Phi. The heat flow and the total heat can also be displayed with appropriately calibrated containers and apparatus.

Module KaloGraph

As a second option SysGraph contains the module KaloGraph for isothermal heatflow and balance calorimetry. Apart from the y–t displays of temperature, dosage weight and calibration power, the base line can also be laid down. For the mathematical evaluation the experiment is simple to divide for calibration, reaction and accumulation zone. The result gives all power and heat settings of the reaction in a graphic and numerical way.

Technical PC requirements

For SysGraph you need a capable computer with sufficient memory and free disc storage space. If you are already using FIX, everything else is already provided for, with the exception of the free disc storage space. In any case, we recommend a Pentium computer with at least 200 MHz, 32 MB RAM, but 64 MB RAM for the NT 4.0 and a 17" colour monitor. Each Windows compatible colour printer can be used.

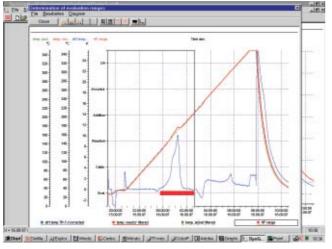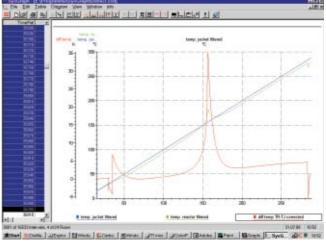**Diagram 5**   Selection of a calculation range

Diagram 6   x-y display: Temp TR and DTR as a function of TJ

Technical changes can be made at any time

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SYSTAG,   System Technik AG
Bahnhofstrasse 76,   CH-8803 Ruschlikon/ZH
Tel +41 (0)44 704 54 54 Fax +41 (0)44 704 54 55
E-mail infos@systag.ch   Internet: www.systag.ch

System Technik Deutschland GmbH
Rodheimerstrasse 63,   D-61191 Rosbach/Frankfurt a.M.
Tel +49 (0)6003 93 50 50   Fax +49 (0)6003 93 50 522
E-mail info@systag-deutschland.de   Internet: www.systag.ch

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