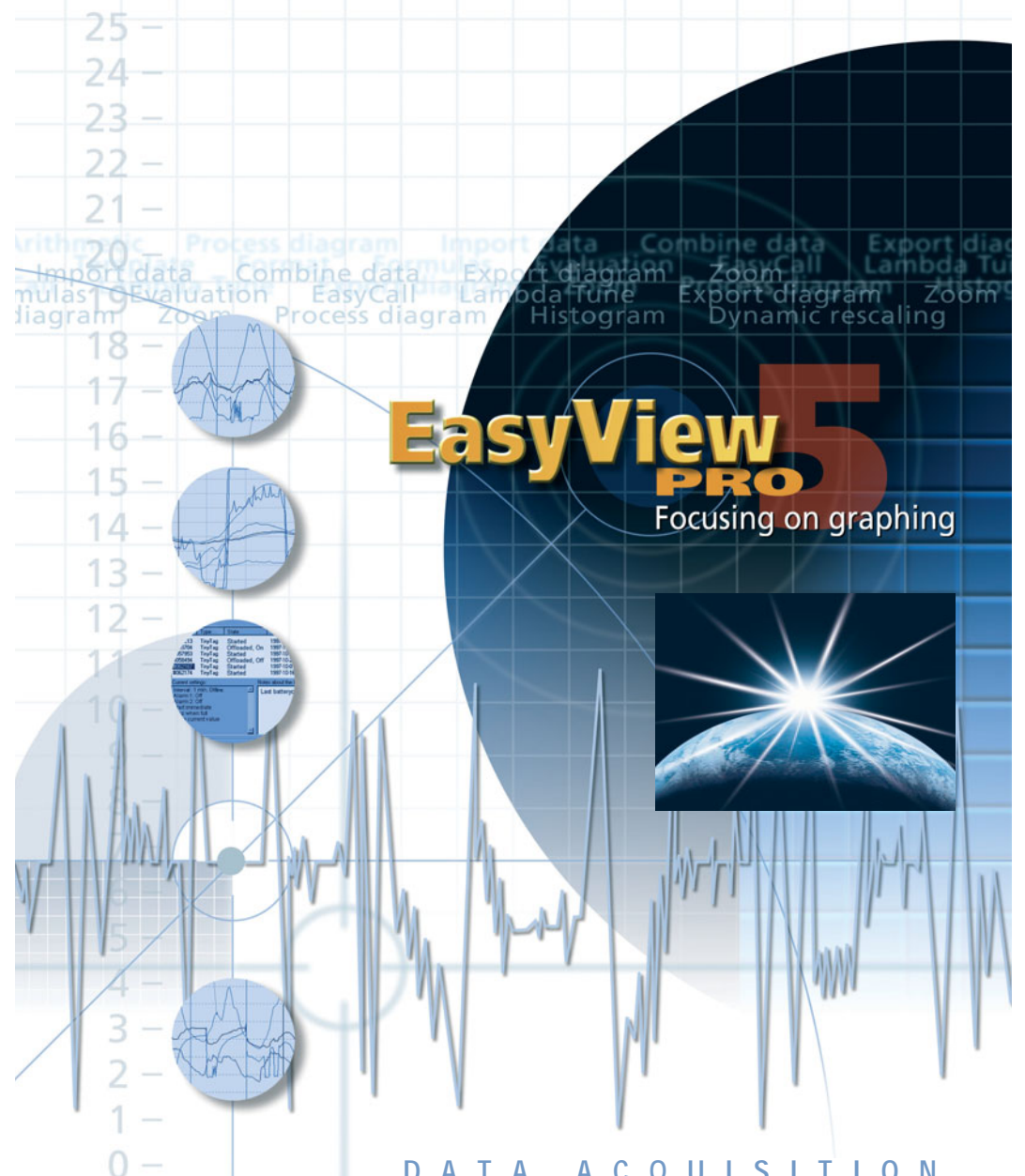




intab^o



DATA ACQUISITION

EasyView - Efficient and complete software for graphing data

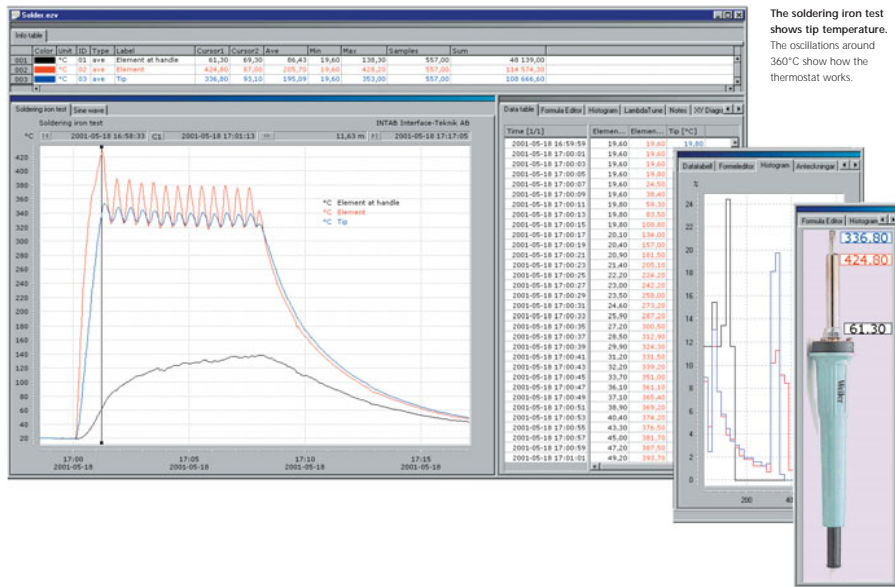
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EasyView PRO

It can't get much smarter!°

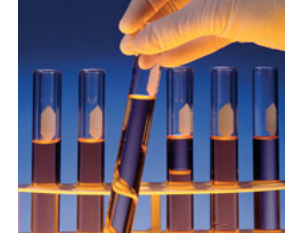
EasyView-Pro°

With EasyView as your main tool for presenting data, your graphs will be put into the right perspective.



Gaining ground !

EasyView is rapidly gaining ground as the standard tool for data and graph management and evaluation. Many users of spread-sheet software (like Excel etc) now turn to EasyView to improve the presentation of their data.



Rolf Högberget of NIVA, Grimstad

NIVA, The Norwegian Institute for Water Research, has several projects that involve automatic monitoring of liming in some of Norway's salmon rich rivers. Acid rains have made this liming imperative. Monitoring the dispensing of lime and its effect on pH is necessary because the salmon is very sensitive to sudden changes in pH. The lime dosage is dependent on river width and water speed. The parameters are recorded by customised PC-loggers that transfer their data via GSM modems.

The EasyView Pro software is invaluable for presenting calculated results in reports.

Intuitive = user-friendly

Zoom* - most important of all features.

"Play with the mouse" in a diagram and you will immediately find ways to rescale the axes for detailed study of the signals. You may not have found the most efficient way of rescaling but it was most likely good enough. What is important is that you found one of the 5 rescaling and zooming tools available. This is one example of the parallel functions that make EasyView an intuitive and user-friendly software.

Effective

EasyView has an extensive system of templates that will speed up repetitious evaluation work. Presentation parameters may be saved in several "tabs" for easy recall at a later session. A well structured and saved "analysis" is invaluable in reports and seminars. You can even include notes and photographs! (See the Nepal hike included in the try-out software.)

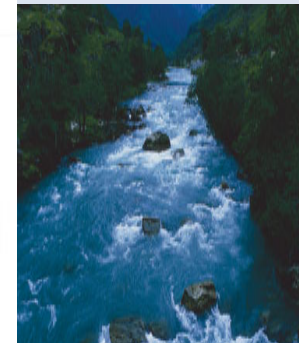
EasyView is a recordings' data base that will keep track of your recordings. Recordings can be sorted by name, time, duration etc. Recordings may also be erased, copied, combined and concatenated.

Intab's comment

The NIVA liming projects are good examples of what can be achieved by applying the mathematical power of EasyView Pro on measurement recordings. The measured parameters are water level, water temperature, pH and the weight of stored lime. These basic parameters are used to calculate more complex parameters like:

- Water flow
- Total water volume
- Lime supply rate
- Total lime supplied
- Long term lime dose
- Lime concentration

To achieve this, the technicians at NIVA have employed a number of formulae. Factors like non-linear flow characteristics and refilling of lime tanks are easily compensated for. The result has been a sets of diagrams and key values that serve as a basis for the evaluation of the projects, both in the long and short term perspectives.



EasyView PRO 5

In plain view°

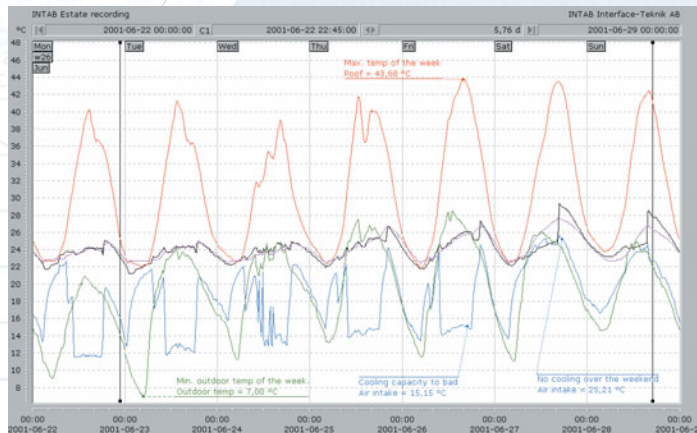
EasyView Pro°

We offer graphics that is worthy of your data!

Want to try for yourself?

Fetch info and demo from

www.intab.se



Functions - (from ver.5.5)

- for the average user

- Powerful zooming tools:
 - 1 - calendar zoom - extremely useful when analysing a whole month, week or day etc. Zooms out too!
 - 2 - rubber band zoom.
 - 3 - rectangle with handles.
 - 4 - select part of an axis.
 - 5 - type in min and max indices.

● Clever graph specific comment tags

- Import measurement data - combine data from several sources and instruments.

● Reads Excel (.xls)-files and ascii (.txt)-files

- Combine and/or concatenate recordings.

- Comprehensive registers keep track of both your recordings and your loggers. They are sortable by several headings.

- Shows real-time measurement data.

- Save your settings as templates.

- Copy selected sections of the info-table as comments to your graphs

- Send a diagram picture to your colleague with just two clicks

- for the demanding user

- Save partial recordings as new recordings. "Throw away" redundant or unimportant sections. A good way to share a part of special interest with a colleague.

- Save a formatted evaluation as a report or for later recall.

- The info table is editable - select only needed columns from 36 headings. Use formulas to create new key values.

- Powerful math package applies formulas to your data: employ arithmetic, trigonometric and logical operators and functions - operates in real time. **Smart setup assistance.**

- Histogram and x/y-plot.

- Process diagram (block diagram, schematic or photo). **Values are presented as numerals, bars or pie-charts.**

- Alarm plug-in for audible alarm, e-mail or relay output.

- Modem support, also GSM.

- OPC- and DDE-support - import of process data in real time

Georg Georgsson of Volvo Cars

Georg Georgsson at Volvo's car factory in Gothenburg, Sweden is responsible for the collection of measurement data during their yearly expeditions to Arizona, USA. We study the performance of the car in extreme heat both in terms of reliability and comfort, says Georg. For these tests we employ a number of PC-loggers type AAC-2 and a customised EasyView software package. The most important parameter is temperature, but rpm and flow are also recorded. We monitor temperatures in the motor gearbox, the catalytic converter, exhaust etc. We also analyse the ability of the ACC to distribute cool air throughout the compartment. Corresponding tests are also performed during winter in the extremely cold environment of Kiruna, Sweden. We are very satisfied by the performance of the INTAB equipment. We are especially pleased by the readiness of INTAB to listen to our points of view and then to have them realised in their products, Georg explains.



Intab's comment

Volvo Cars, one of our major customers, is a very good example of customers putting our equipment to the widest possible use. It is used in R & D as well as in production monitoring. Motors are evaluated in the lab as well as on the testing track. Environmental parameters and hydrocarbon concentration, catalytic converter performance, compartment and heated seat temperatures and time/temperature dose when curing paint are measured.

We are sure that we have contributed to better and safer cars that are friendly to the environment.

EasyView PRO

EasyView with on-line support*

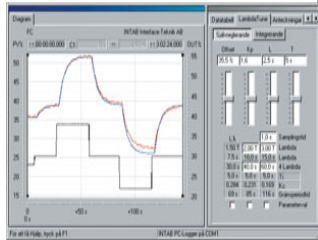
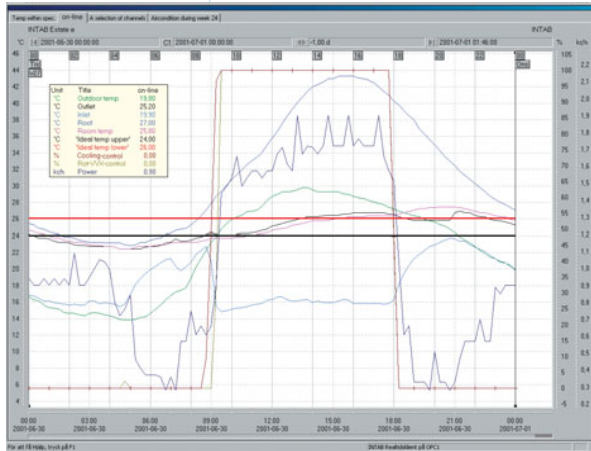
EasyView Pro

- Start your software
- Record!

- it can't get simpler!



How well does your ventilation work? Your answer is here - in real-time! The diagram moves exactly like a pen recorder.



Lambda-tuning
The optimizing menu

○ On-line or Off-line

Select the most practical method. Data is written in real time to disk when you record on-line. You can see the data rolling in on your screen as if it were a pen recorder. The software will handle several data sources simultaneously.

○ Recorder manager - register

Helps you by "keeping tabs" on your loggers. It is a register containing serial numbers, start/stop time, status and recording parameters.

○ EasyCall

EasyCall is supplementary program that will, at regular intervals, via the phone net call loggers and fetch collected data. Each logger thus called has a separate recording file to which all new data are appended. The recording will grow day by day or week by week depending on settings. You will automatically have the very latest trends to analyse on your computer.

○ LambdaTune

The LambdaTune is a very sophisticated plug-in. It automatically calculates PI-regulator parameters from system response using the universally recognized Lambda method. This regulator tuning, or optimization, is applicable in all kinds of industries.

○ The OPC/DDE: Real-Time Data Exchange

A Real-Time client in EasyView could be looked on as a "virtual logger". This opens up the possibility to log signals in real time either from locally run OPC/DDE servers or via Intranets and Internet. Many industrial process control systems are these days accessible through DDE (Dynamic Data Exchange) or the more advanced OPC (OLE for Process Control) technique.

○ Publisher - Publish your graphs on the net



LOGGERS FROM INTAB - FULL RANGE



Roland Hörberg of Södra Cell, Mörrum

Södra Cell in Mörrum employs EasyView with the LambdaTune plug-in to optimise its regulating equipment. Time has shown that EasyView is able to solve many more problems. The manufacturing processes are today controlled by ABB ADVANT. The EasyView Realtime OPC and DDE Clients have furnished the tools to, at any time, monitor any signal: may it be flows, pressures, temperatures or any other signal. It is, as Roland puts it, **a superb tool for finding interdependencies in a jumble of jittery signals.**

Intab's comment

Södra Cell AB is a world leading producer of paper pulp. A substantial part of this is produced in Mörrum in the south of Sweden.

Our EasyView software is integrated with the factory process control systems. It is used as an optimization tool, trouble-shooter, signal adjuster and historian. Dedicated EasyView terminals are conveniently placed beside the process monitor terminals. The EasyView "project manager" is used to start real time recordings of the signals in a specific regulator using pre-selected recording parameters. Historic data on the same regulator can at all times be fetched from a SQL data base.

This configuration constitutes a powerful and appreciated tool for data analysis and process optimization.