ProfiSignal

Basic and Klicks

Measurement data acquisition
Test stands
Laboratory automation
Remote monitoring

Delphin Technology
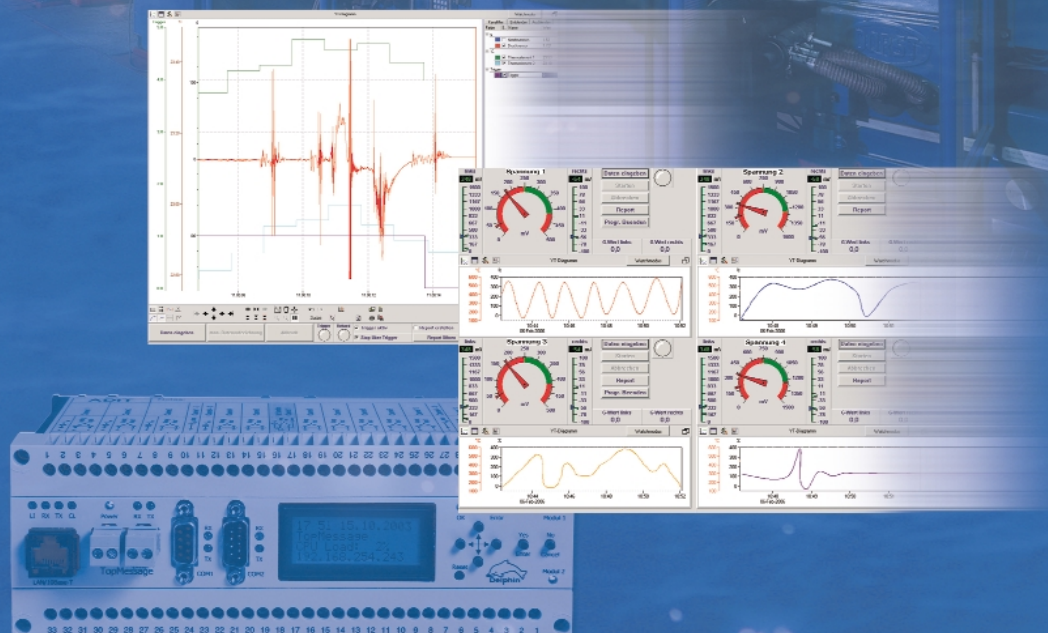
Modular and flexible

There are many good reasons for choosing ProfiSignal. Lots of large and medium sized organisations have already done so and are using ProfiSignal for measurement data acquisition, test stand and laboratory automation and remote monitoring (e.g. Bayer, Siemens, Oerlikon Leybold Vacuum, E.ON, MTU and many more). ProfiSignal applications are suitable in process and test engineering, quality control and research and development.

ProfiSignal is a modular system designed to meet user requirements – both for systems with thousands or just several numbers of channels. ProfiSignal's modular construction provides the user with the optimal solution both in terms of functionality and value for money.

ProfiSignal is available as either Basic or Klicks. Basic enables data acquisition, archiving, analysing, operation and observation. Klicks includes programming, reporting and input mask functions.

Hardware and software from one supplier

ProfiSignal uses Delphin's tried and tested TopMessage hardware. These are decentralised, network capable, measurement data acquisition and automation devices in one.

ProfiSignal can use existing data networks – no new cabling is required. ProfiSignal enables process data to be accessed from any PC.

ProfiSignal Basic
Measurement data acquisition
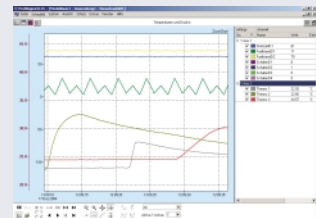
ProfiSignal Klicks
Measurement data & processing
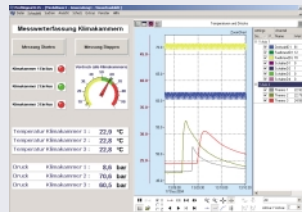
LAN
Network
TCP/IP

Plants, Machines, Test Stands,

reasons for choosing ProfiSignal

ProfiSignal offers complete solutions

ProfiSignal can be delivered as a complete package including hardware, software, installation and training. The hardware/software components can also be delivered separately. Using ProfiSignal makes system planning and system startup quicker. ProfiSignal is simple to understand and logically designed. High out-sourcing costs are not necessary – ProfiSignal reduces costs.

Suited to a wide range of applications

ProfiSignal applications range from the simple acquisition of process data through to the monitoring and analysis of dynamic vibrations.

ProfiSignal is not limited to the number of processes to be monitored and controlled. ProfiSignal can provide solutions – whether the application concerns test stands or reactors.

ProfiSignal software is made up of function blocks which require only configuration. This makes it simple to generate applications which meet specific user requirements. A further benefit is the ability to run, for example, both quality control and trouble-shooting from the same PC. Vibration analysis and monitoring can be optimised by using Delphin's TopMessage hardware. This saves on the costs involved in combining systems from different suppliers.

The following pages provide further information on ProfiSignal Basic and Klicks as well as Delphin's TopMessage hardware.

Contact us – we will be pleased to advise you on your specific requirements.

WWW/GSM
Remote monitoring, -analysis, Remote maintenance

TopMessage
Measurement and control units

Tests

ProfiSignal Basic – intelligent acquisition,
Measurement data acquisition

ProfiSignal Basic

ProfiSignal Basic can acquire measurement data, monitor processes and operate and observe test stands. Basic provides the user with process visualisation features, intelligent analysis using trend and characteristic curve charts, and reporting and print functions. Basic is suitable for both continuous and batch processes.
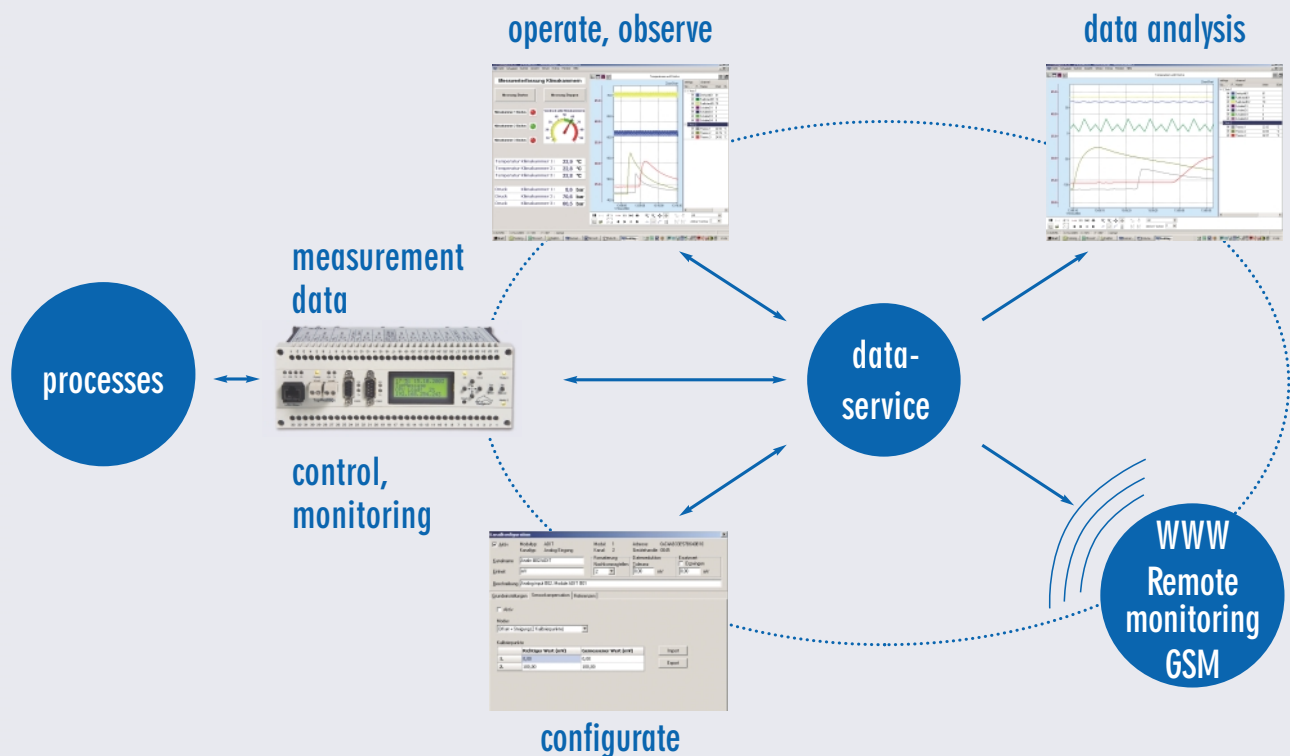
The system ensures maximum data security – data is saved both within the TopMessage device and to a central server or local PC. The user can simultaneously access process, vibration and operational data.

Uninterrupted recording of data

Recorder objects provide users with the exact data required for their specific tasks.

The integrated DataService gives immediate access to historical data at high data resolution – there is no faster system available. The data is comprehensive and provides the user with the perfect diagnosis tool. Evaluation can be performed from any PC – within the local network or from anywhere in the world.

The DataService is capable of processing large amounts of data. Even measurement data acquired over long time periods can be processed. Data acquisition and storage in kHz is also possible for vibration analysis or the evaluation of transient processes.

operate, observe

data analysis

measurement data

processes

control, monitoring

data-service

configurate

WWW Remote monitoring GSM

monitoring, operating...

Operating and observing

Processes can be visualised using a wide range of operating and observation objects. Analysis functions are also available.
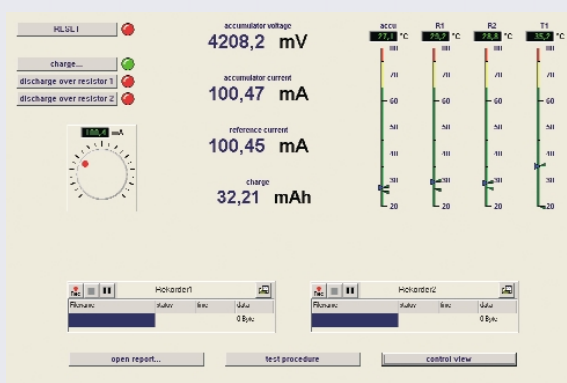
A visualisation diagram is shown above. Operation and observation objects are located on the diagram using the drag&drop feature. The object's properties can then be set as required by the user. A visualisation diagram can therefore be generated in just a few mouse clicks.
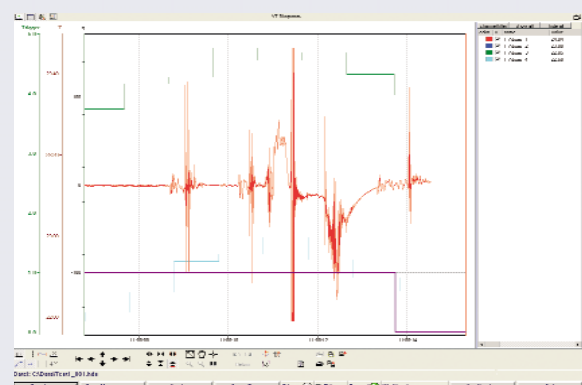
User friendly analysis and trend chart output

Trend charts (Yt diagrams) and characteristic curves (Yx diagrams) are available for measurement data analysis. Trend charts (Yt diagrams) can portray high resolution data, over long time periods, for quality control and disturbance analysis in continuous processes. Both slow and fast signals can be portrayed in one chart. A zoom function is available for each trend chart.

The formula manager enables calculations to be performed on measurement data. Output can be saved and graphically portrayed. Calculations are easy to implement – irrespective of whether they are concerned with complex efficiency calculations or basic temperature differences.

ProfiSignal Basic – Overview of features

- Parallel running of different applications
- Uninterrupted saving of data from continuous processes
- Data storage on local PCs
- Operation and observation of experiments, plant and machinery
- Flexible and diverse process visualisation
- User friendly charts and graphs (y(t), y1...n(t), y(x), logic diagrams...)
- Useful analysis functions (cursor, statistic, markers)
- Export function of measurement data in ASCII format to MS Excel
- User defined report function and print features
- Formula editor for performing calculations on measurement values

ProfiSignal Klicks

ProfiSignal Klicks enables users to create their own applications – for example, test stand and laboratory automation or measurement data evaluation – without needing any expert IT knowledge.

Klicks has the same functions as Basic with the added features of: input masks for test parameter and recipe input; structure diagrams; reporting and protocol functions; and the Klicks language for generating programming procedures. Klicks provides technicians, engineers and scientist with a single package to generate their own in-house applications.
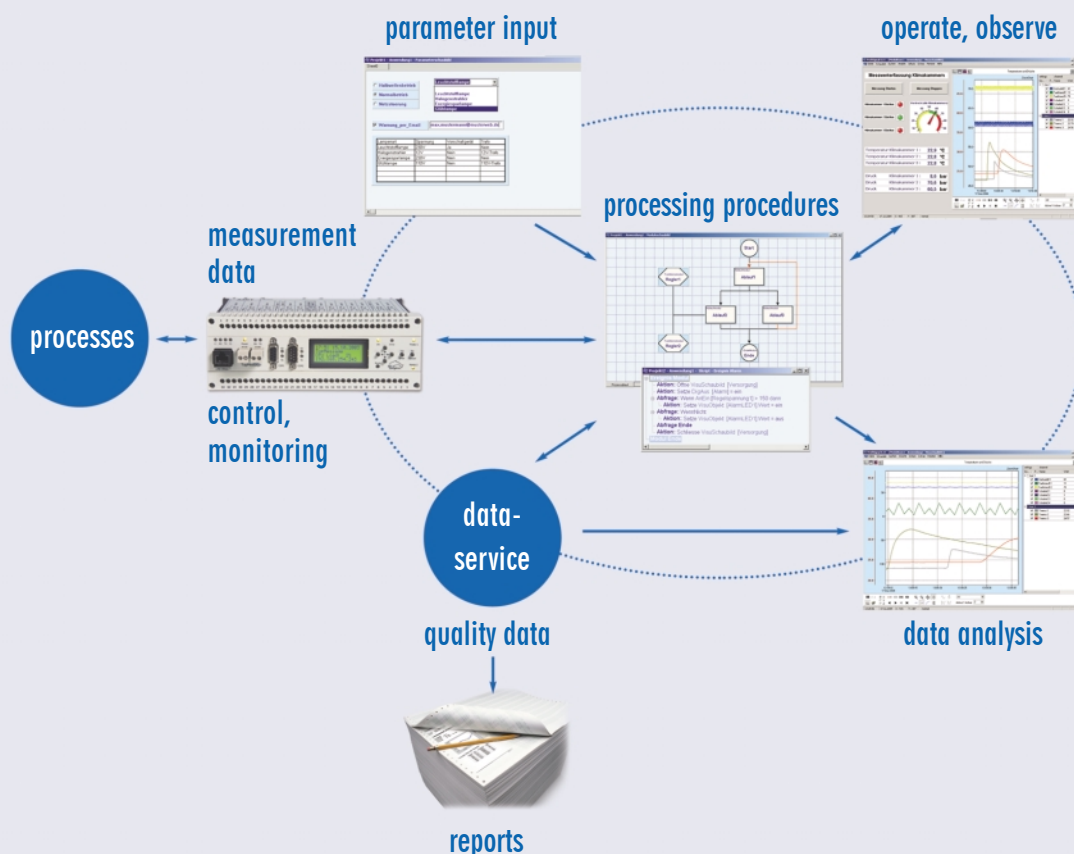
ProfiSignal Klicks is suitable for both continuous and batch processing systems.

Test parameter and recipe input

ProfiSignal Klicks enables the easy input of para-meter, charge and recipe data – an important tool for test and laboratory automation.

ProfiSignal Klicks makes it simple to generate input and selection masks using text objects, input fields, dropdown lists, check boxes, set point curves and tables. SQL and ODBC interfaces enable the direct importing of parameters from external data bases – this speeds up input and reduces input errors.

parameter input

operate, observe

processing procedures

measurement data

processes

control, monitoring

data-service

quality data

reports

data analysis

procedures

Easy set up of test and processing procedures

ProfiSignal Klicks is a system developed for technicians, engineers and scientists who wish to create their own applications without needing expert IT knowledge. ProfiSignal Klicks means users do not need to learn a new programming language. The typing in of instructions is also not required – meaning no more syntax errors.

There is no requirement to learn all the rules of a programming language. All effort can now be concentrated on the process itself.

The process can be graphically structured using just a few special building blocks. The resulting structure chart provides an immediate overview of the process. The building blocks act as containers for the programming instructions. Double clicking a building block opens the instruction editor.

ProfiSignal applications are also easy to maintain and upgrade.
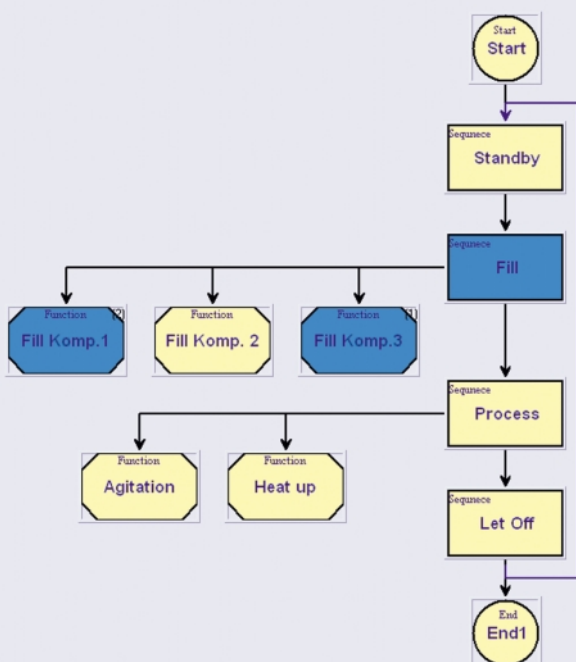
The program code in the following illustration appears as if it has been typed up in the traditional way.
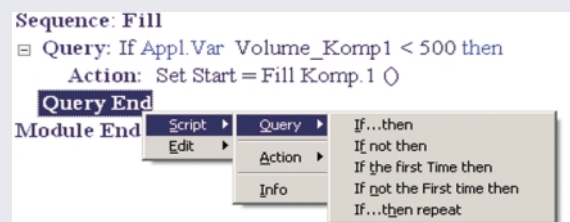
In fact, it has been generated with just a few mouse clicks. This new type of programming is based on selection from lists of possibilities. The programmer need only select the program text that meets the needs of the task (Programming by Selection). Using ProfiSignal to generate your own applications is fun!
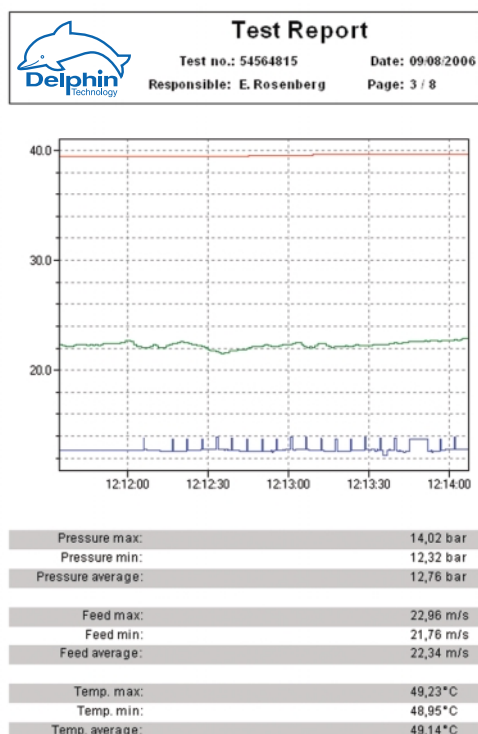

Benefits of using ProfiSignal Klicks

- No learning of a new programming language, no expert IT knowledge required
- No typing of program text – instructions are selected
- No more syntax errors
- No new learning of a programming language
- No searching for programming elements
- Allows all effort to be concentrated on the task in hand
- Simple program maintenance
- Easily readable program code

ProfiSignalKlicks
Measurement data & processing

– Quality control at the press of a button

Individual reports

The illustration is an example of a ProfiSignal report. Reports are generated in the same way as visualisation diagrams and parameter input masks. Reports can contain objects such as trend charts (Yt-diagrams), characteristic curves (Yx-diagrams), tables, pictures, input data, text and, of course, measurement data.

Reports are automatically generated and archived using time or event triggers. ProfiSignal's reporting function is an excellent and user-friendly tool to control quality and test results. Data generated by the report function can be exported to other databases using ProfiSignal's SQL and ODBC interfaces.

Test Report

Test no.: 54564815   Date: 09:08:2006
Responsible: E. Rosenberg   Page: 3 / 8

Pressure max:	14,02 bar
Pressure min:	12,32 bar
Pressure average:	12,76 bar
Feed max:	22,96 m/s
Feed min:	21,76 m/s
Feed average:	22,34 m/s
Temp. max:	49,23°C
Temp. min:	48,95°C
Temp. average:	49,14°C

ProfiSignal Klicks – Main features

- Contains all ProfiSignal Basic functions
- Simple generation of ProfiSignal applications for test, automation and quality requirements
- Simple set up of input masks for parameter and recipe input
- Easy overview of ProfiSignal applications using structure chart
- Intuitive programming technique
- Reporting function
- Import/export of data via SQL and ODBC
- ProfiSignal applications easy to maintain and upgrade
- Fully functioning - no need to incorporate software tools from other suppliers

# TopMessage – the intelligent measurement device

Industrie & Labor

Ethernet, TCP/IP, LAN

The hardware in Delphin's measurement systems

Delphin's measurement systems use the TopMessage hardware as its basis. TopMessage devices are decentralised measurement data acquisition, analysis and automation devices in one. They are easy to configure via dialogs. Their modular design makes them suitable for both large and small channel numbers. TopMessage devices can acquire traditional process data such as pressures, temperatures and flow. They can also acquire vibration signals from speed, acceleration and displacement sensors. TopMessage devices provide a near 100% guarantee against ground loops which can distort measurement data.

TopMessage devices are intelligent devices. Measurement data is immediately converted into meaningful information. TopMessage devices can compute and record FFT analyses. TopMessage devices can monitor set point values and trigger alarms in the form of SMS, email or shutdown procedures.

TopMessage devices are compact and equipped with detachable clamps and top hat rail mountings. They are therefore easy to install at any required location. TopMessage devices are equipped with an internal data logger. This means no data loss even in the event of PC or network failure. TopMessage devices are autarchic and capable of independently performing many control and monitoring functions.
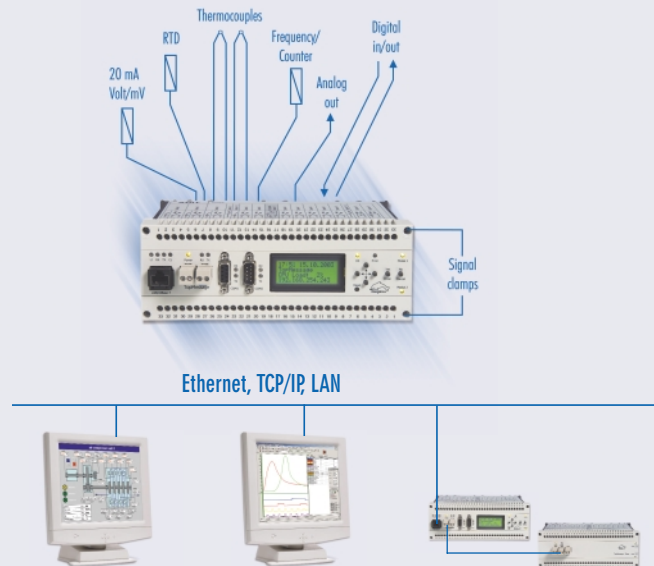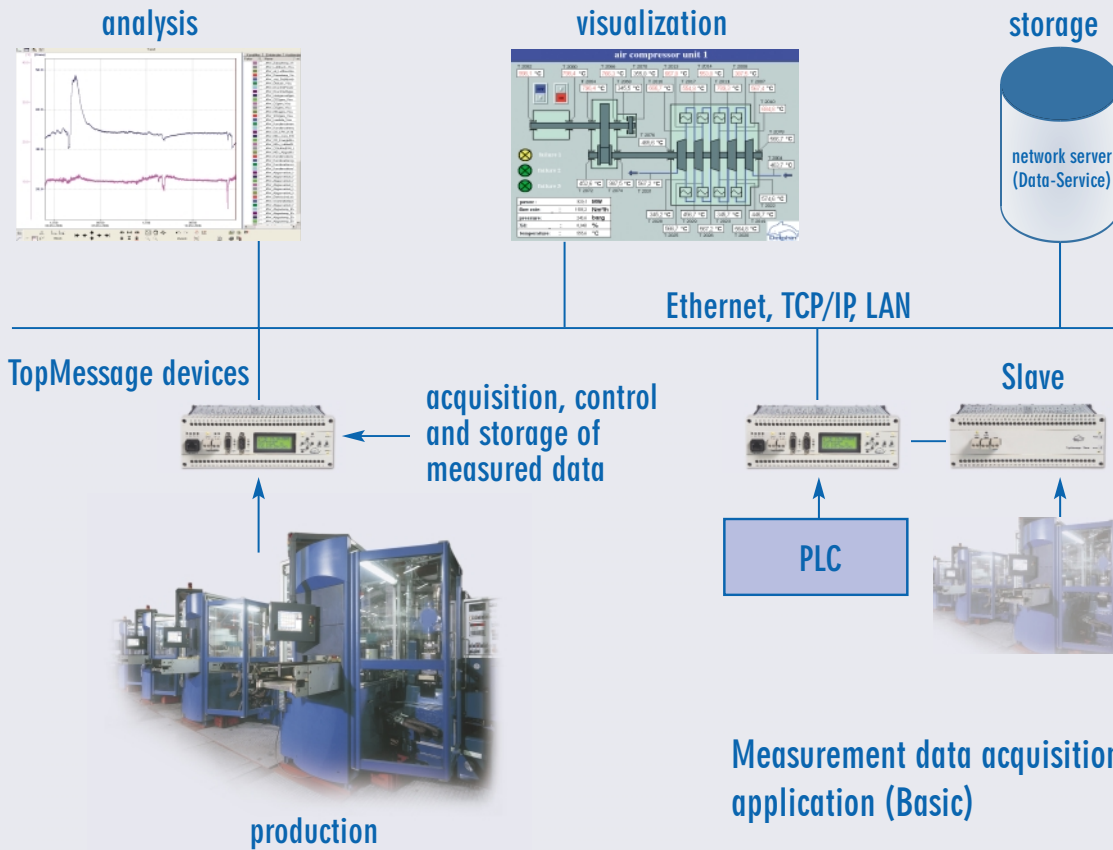
TopMessage features

- Simple connection to PCs via Ethernet interface
- Utilises existing data networks
- Full galvanic isolation, no external isolating transformers required, no ground loops
- Data security through internal 1GB data logger
- Serial port for connecting modem, weighing machines etc.
- Remote monitoring of plant and machinery via telephone and internet
- Connection to external systems via ProfiBus DP, Modbus and OPC
- Monitoring and analysis of measurement data
- Autarchic running of set point selection and control within Message devices

ProfiSignal Basic – Measurement data acquisition ...

Measurement data acquisition

analysis

visualization

storage

network server
(Data-Service)

Ethernet, TCP/IP, LAN

TopMessage devices

acquisition, control
and storage of
measured data

Slave

PLC

production

Measurement data acquisition application (Basic)

- Flexible acquisition and analysis of operational and process data

- Compact, industrial standard hardware (top hat rail mounting)

- High EMC (electromagnetic compatibility) due to galvanic isolation, differential inputs

- Signal preprocessing in device via virtual channels (examples of virtual channels: power/-/flow rate meters, operational /dead-time counter, limit value /calculation channels, multi-level alarm via digital output /E-Mail/SMS)

- Bidirectional connection to controllers (PLC) and control technology (OPC)

- Centralised data storage (Client/Server)

- Data security through internal data logger

ProfiSignal Klicks – ready to use solutions for test stand
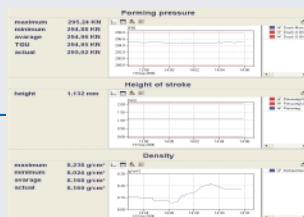
Measurement data & processing

Test stand application (Klicks)

- Ready to use solutions for test stand systems (hardware, software, planning, installation and training)

- Universally configurable inputs and outputs

- Autarchic monitoring function (independent from PC)

- Full test stand application with input masks, automated testing and documentation procedures

- Connection to existing database systems (ODBC/SQL)

- Different testing procedures can run parallel and independently from one another

- Networking capability means testing procedures can be run/monitored from any PC

parameter   analysis & visualization   reports

SQL database for parameter

Ethernet, TCP/IP, LAN   ODBC
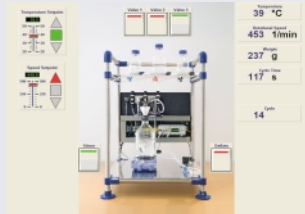
test stand   connection panel   test items
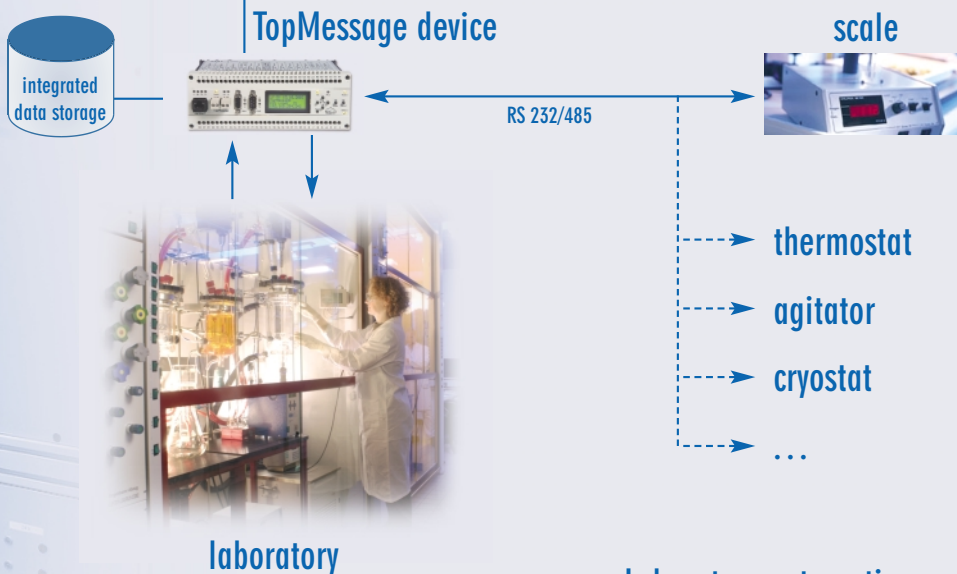
systems, laboratory automation, research and development and production systems

operate, observe, analyze

Ethernet, TCP/IP, LAN

TopMessage device

scale

integrated data storage

RS 232/485

thermostat

agitator
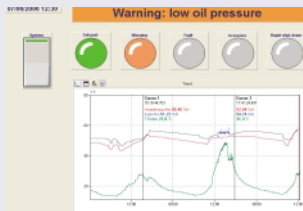
cryostat

...

laboratory
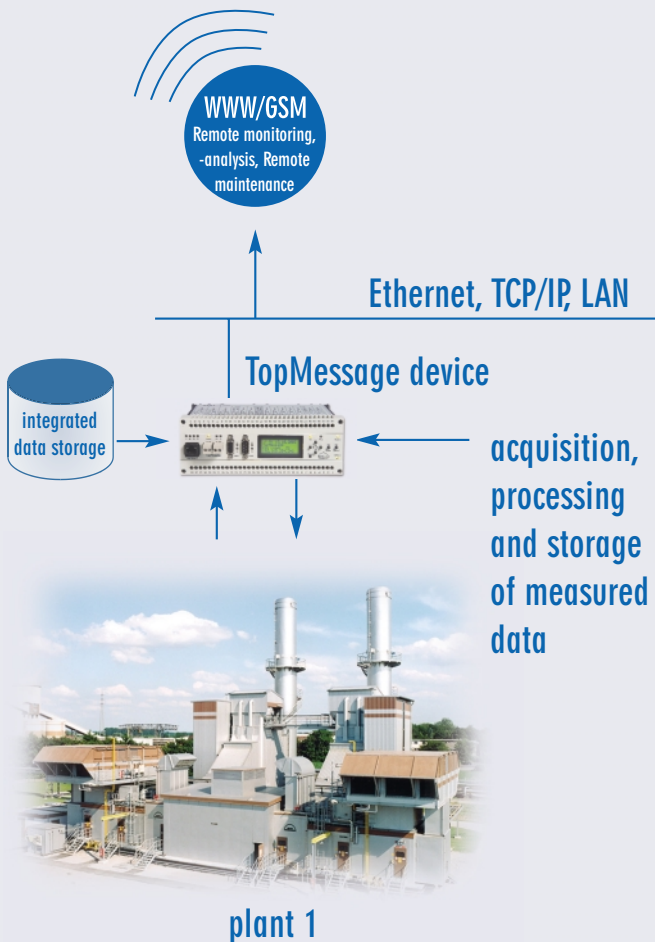
Laboratory automation application (Klicks)

- Input, storage and repeating of recipe and parameter sets
- Easy connection of laboratory equipment via serial port
- Conforms to FDA directives on the acquisition and archiving of measurement data (FDA 21 CFR Part 11)
- Open and multi-functional system
- Simple set up of experiment automation and visualisation
- Very flexible and easy to operate
- Measurement data archiving function

Delphin Technology

... and remote monitoring for process and mechanical engineering

Remote monitoring application (Basic)

- Autarchic acquisition and storage of measurement data using TopMessage hardware anywhere in the world

- Broadband access (LAN/DSL) to TopMessage via internet/intranet/ VPN or dial-up access (analog, ISDN or GSM modem)

- Disturbance/malfunction warnings via SMS, E-Mail or Fax directly from TopMessage device
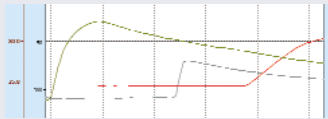
- Online monitoring and remote operation using ProfiSignal

- Measurement data evaluation in ProfiSignal

- Automatic readout of stored measurement data

analyze & observe in the central office

Warning: low oil pressure

WWW/GSM
Remote monitoring, -analysis, Remote maintenance

WWW/GSM
Remote monitoring, -analysis, Remote maintenance

WWW/GSM
Remote monitoring, -analysis, Remote maintenance

WWW/GSM
Remote monitoring, -analysis, Remote maintenance

Ethernet, TCP/IP, LAN

TopMessage device

RS232

RS232

integrated data storage

acquisition, processing and storage of measured data

plant 1

plant 2, 3

DELPHIN'S product range

ProfiSignal Basic
Measurement data acquisition

Measuring, evaluation, monitoring

ProfiSignal Klicks
Measurement data & processing

Measuring, evaluation, operating, observing, automating, monitoring

ProfiSignal CMS
Condition monitoring

Condition monitoring, weak spot analysis

TopMessage
Industry & Laboratory

Measuring, controlling, monitoring

Control cabinets

For industrial applications

Portable devices

Field experiments, service

Laboratory devices

Modular, to meet specific requirements

Delphin Technology

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Services from DELPHIN:

- Training
- Ready-to-use systems – static and mobile
- Installation and set up
- On site calibration

ISO 9001 zertifiziert   CE