

Delphin Data Center



Central **measurement data handling**

Easy. Efficient. Equipped.



Delphin Data Center – **PROCESS OPTIMISATION**

Are you looking for a centralised measurement data management system that networks, centrally stores, monitors and analyses the measurement data of your systems, machines and test stands? Do you need to archive your measurement data in a valid and traceable way and be able to access it within seconds, whether on a network, via PC or mobile via smartphone or tablet?

The Delphin Data Center will then meet your needs precisely. You get a central measurement data management system to complete your tasks without the need for time-consuming and costly programming. The Delphin Data Center is a high performing processor and provider of data while also being highly versatile.

Its open structure gives you a simple way to standardise, archive and monitor measurement and process data: for applications in inspection, life cycle testing, the monitoring of systems and machines, locally and worldwide.

From isolated applications to **centralised measurement data management**

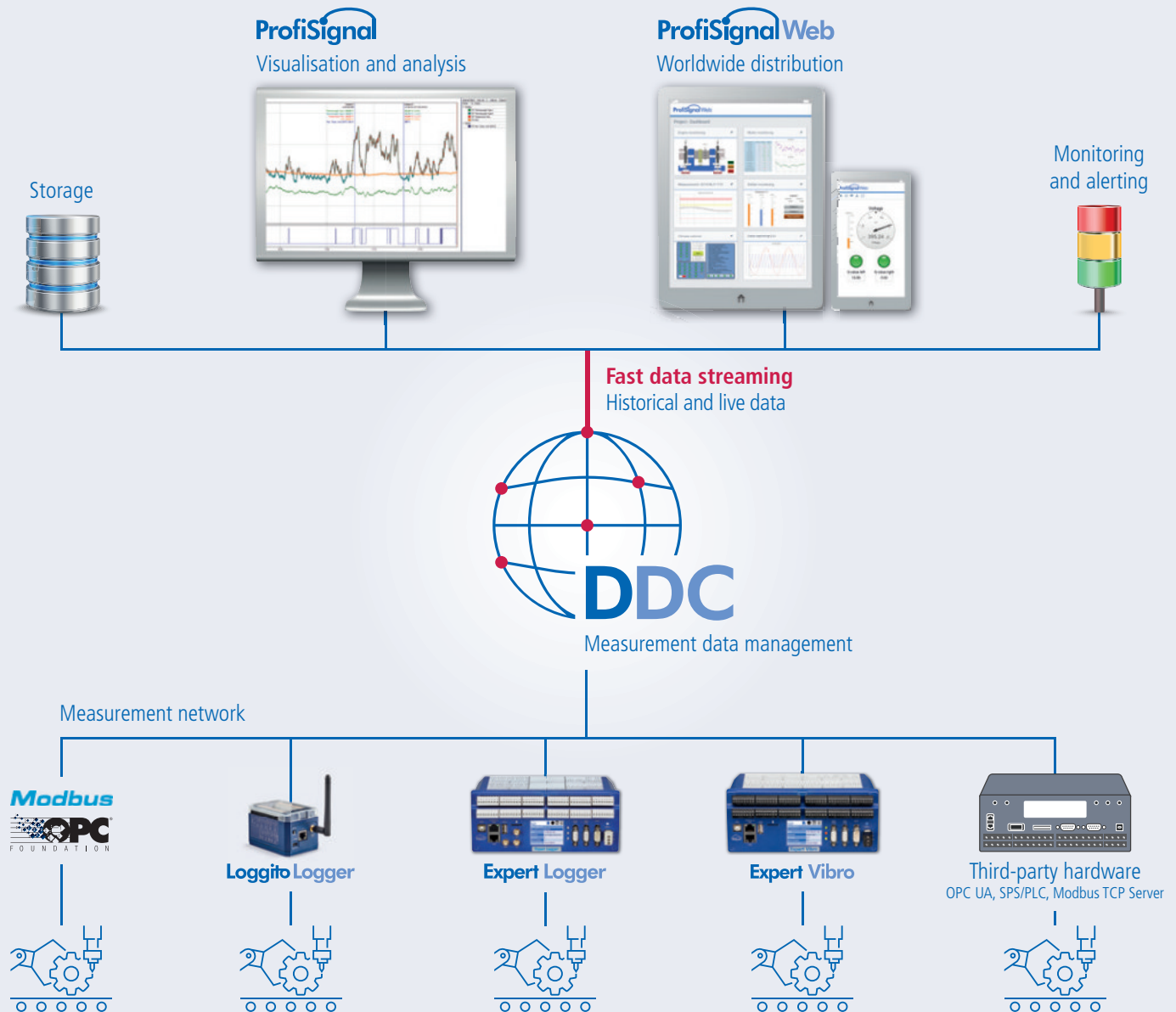




Product highlights

- Centralised data acquisition from distributed sources
- A range of interfaces enable any data source to be connected
- Loss-free data compression
- Long-term archiving
- Special data pre-processing via software channels
- High-performance data archiving with lightning-fast access
- Smooth transition from online to historical data
- Access via any number of clients (license packages)
- Continuous and batch-based archiving and evaluation
- Automated export of measurement data and characteristic values
- Cross-system user management
- Centralised alarm management with multiple notification options
- Extendible via web servers for platform-independent access
- Processing of up to 10 million data records per second
- Easy to use, can be setup without programming

Delphin Data Center – **CROSS-PROCESS** DATA HA



A **digital heart** brings together all **Data** regardless of its source and location

Loss-free transfer

The Delphin Data Center is the heart of your measurement data management system. It merges, synchronises and intelligently pre-processes your data, and uses data compression to optimise storage and performance. Software channels provide extensive functions for calculating and analysing measurement data. The Delphin Data Center also offers user and alarm management across systems. Automated measurement data export is also possible, e.g. into ASCII or CSV formats.

Data synchronisation

Data sources can vary widely at the field level but connecting data to the Delphin Data Center is easy. It doesn't matter whether the machine and process data is being acquired with Delphin or other manufacturer devices, or whether the measurement data sources are connected via protocols such as Modbus or OPC.

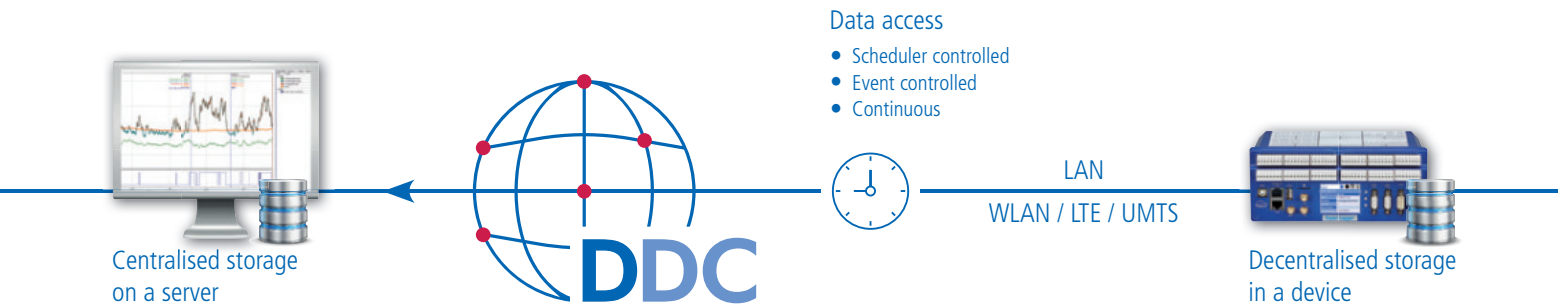
Worldwide access

Data visualisation and analysis is possible locally and worldwide using ProfiSignal and ProfiSignal Web. For worldwide access, ProfiSignal Web is ideal, since it requires no local software installation on a PC. For both software systems, the Delphin Data Center provides current and historical measurement data instantly and without interruption. Permanent data storage, e.g. on a NAS drive, can also be initiated by the Delphin Data Center. Alerts can be forwarded to a control centre and, in the event of an alarm, automatic emails and textmessages can be sent.

Data security

A particularly high level of data security is achieved when Delphin data loggers and data acquisition systems are used in operations. The majority of our measuring and testing devices are equipped with robust industrial data storage capabilities to guarantee process-based storage of any measurement data. A scheduler integrated in the DDC enables automated and intelligent data access and centralised archiving of all measurement data. Even in the event of malfunctions or network interruptions, smooth data acquisition and data consistency are guaranteed.

Delphin Data Center – **VERSATILE** FUNCTIONS



Data management

- Centralised data acquisition from distributed sources
- Loss-free data compression
- Special data pre-processing via software channels
- Data storage incl. database processing
- Continuous and batch-based archiving
- Fast, smooth transition from online to historical data
- Access via any number of clients (license packages)

Data security

- Automated access to Delphin measuring and testing devices by an integrated scheduler
- Continuous data acquisition and data consistency
- Secure separation of measurement data network and office network

Alarm management

- Creation of alarm conditions and rules
- Detailed alarm list with options for confirmation
- Notification by email and text messaging in alarm events
- Audittrail for FDA compliant applications

Data interfaces

- OPC DA Client / Server
- Modbus TCP client
- ASCII-DLL
- API-, SQL interface and ODBC
- OPC UA
- Individual drivers incl. configuration dialogs

User management

- Password management
- User-rights management
- Client management

Software channels and calculations

- Calculation of any number of channels with each other using calculation channels
- Limit value channels monitor a source for limit values with the ability to generate alarms
- Mean value channels calculate a channel's mean value
- Statistics channels calculate statistics for a channel:
 - Minimum
 - Maximum
 - Variance
 - Standard deviation
 - Number of measured values
 - True RMS value
 - Geometric mean value
 - Harmonic mean value
- Linearisation of non-linear signals
- Counter for channel edges
- Pulse generator for cyclic pulses
- Sequencer for controlling measurement sequences and processes
- Integration of function libraries and tables (e.g. substance databases for refrigerants)

The right solution for applications in your industry

- Automotive
- Chemicals and pharmaceuticals
- Electrical engineering and ICA
- Energy technology
- Heating, ventilation and air conditioning
- Luminaires
- Mechanical engineering



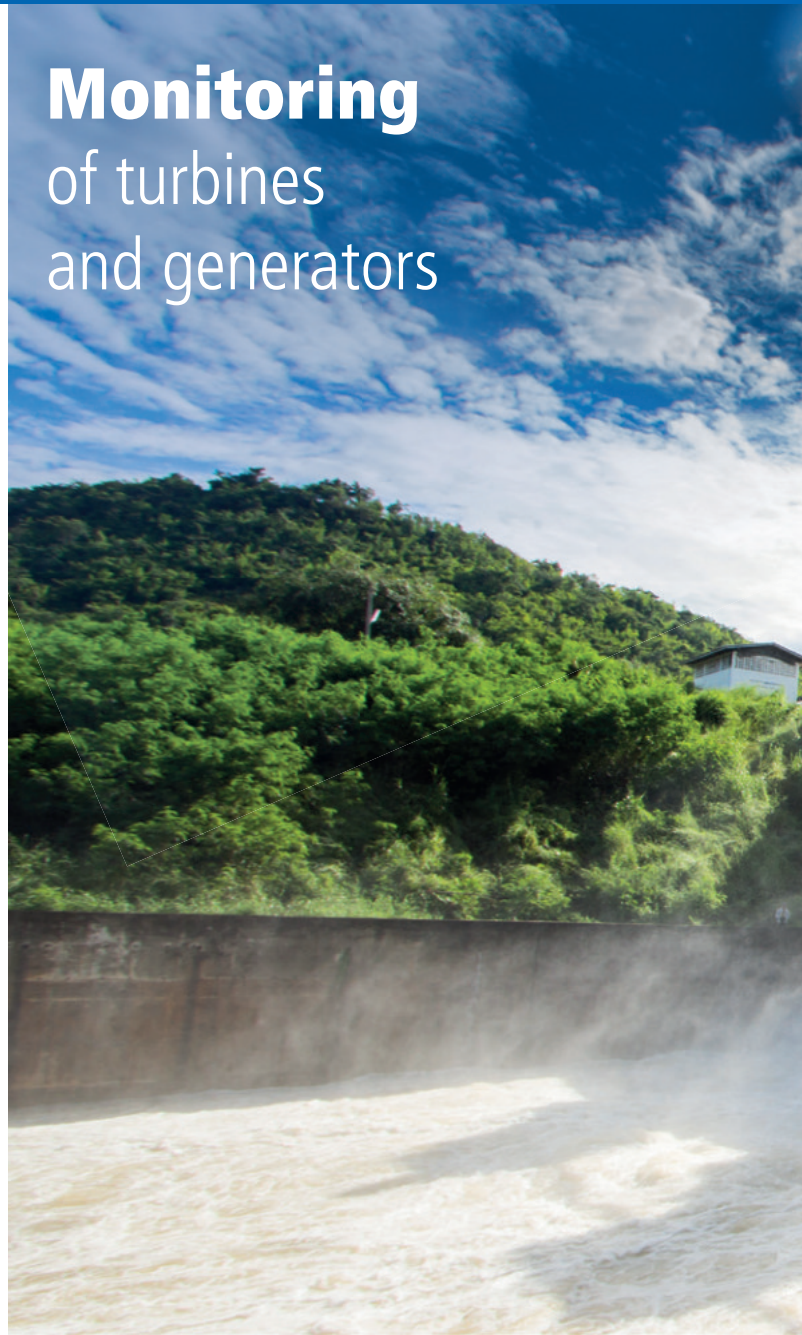
Delphin Data Center — APPLICATIONS

The Delphin Data Center is used wherever centralised access to distributed machines or systems is required.

A worldwide-operating manufacturer of hydropower plants uses the Expert Vibro vibration measuring device to monitor its turbines and generators. A hydropower plant typically consists of several units, each comprising five turbines. For fault analysis, a local measurement computer is available on site for each unit, allowing direct service access. The entire hydropower plant is monitored from a central control centre, where the measurement data from all units converge.

The manufacturer uses the Delphin Data Center in combination with the measurement software ProfiSignal to merge, synchronise and evaluate all measurement data in the control centre. A VPN router also provides worldwide access for all authorised personnel. Centralised alarm management in the Delphin Data Center ensures that pending alarms are immediately reported to the control centre and forwarded by email or textmessage as required. The Delphin Data Center also performs long-term storage, on a central NAS drive, of the relevant measurement data and the computed characteristic values.

Monitoring of turbines and generators





Other application examples

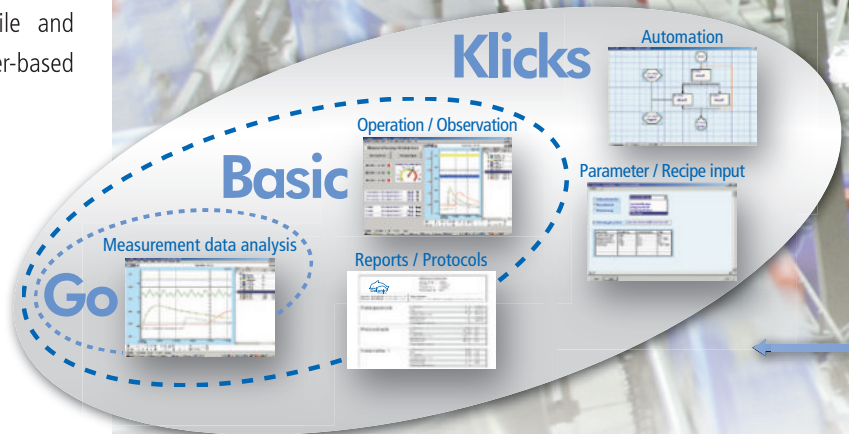
- Condition monitoring of machines and systems
- Service life testing and long-term archiving
- Monitoring of field test facilities and test drives
- Synchronisation of worldwide measurement and monitoring tasks
- Data standardisation and consolidation
- FDA-compliant applications / clean room monitoring
- Operational and process data acquisition
- Connection to ERP and MES software

ProfiSignal – THE RIGHT SOFTWARE

Do you need centralised measurement data management as well as a complete package of analysis software to effortlessly visualise and analyse your measurement data, monitor your processes and create a system to control complex installations? The ProfiSignal software is designed to function optimally with the Delphin Data Center.

ProfiSignal is a complete package of software for data acquisition and analysis, visualisation and automation. ProfiSignal is very user-friendly and combines a versatile range of functions with top-rate operability. Regardless of whether you want to process just a few or many thousands of channels, ProfiSignal is comprehensible and logically structured. Beginners are able to become quickly familiar with the software. ProfiSignal is modular, scalable and available in three versions: Go, Basic and Klicks. The higher level version has downward compatibility regarding operation, measurement files and application projects. For mobile and location-independent access to your processes, the browser-based ProfiSignal Web is also available.

Fast **project development**





ProfiSignalGo

- Fast visualisation of measurement data in different diagram types
- Data acquisition and storage
- Measurement data analysis and calculation
- Online and offline diagrams
- Data export and print function
- Office compatibility

ProfiSignal Basic

- Creation of system and process visualisation
- Operation and monitoring of systems and processes
- Creation of basic reports

ProfiSignal Klicks

- Automation of test stands
- Programming of control procedures
- Automation of evaluation / analysis functions
- Creation of parameter views
- Creation of comprehensive reports

ProfiSignalWeb

- Location-independent access to measurement data and processes
- Mobile process visualisation and control via customisable dashboards
- Display in the browsers of any device

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