Fact Sheet

Converting Process Data into Valuable Information

A continuous process monitoring with neural networks and statistical tools enables the early detection of creeping process changes. Moreover, owing to a central data management, existing measured values can be stored in long-term archives, the preparation of analyses can be significantly facilitated, and the reporting can be standardized.

In the cement industry, it is not uncommon that measured data are gathered in several independent systems. This does not pose a problem for the plant operation as the individual process controls can work independently of each other. In the context of operation management, however, it often results in a considerable effort e.g. to merge the data in reports or to detect changes in the production process early on.

Efficient data management
SR::x enables the long-term data storage including data export to MS Excel and thus the analysis of the operating data over longer periods of time.
The data server SR::x is a central data archive that allows for the long-term storage and provision of measured

values from virtually all data sources via usual interfaces and protocols.

In addition to the mere storage of numerical data, SR::x condenses the data into hourly, daily, and monthly values and enables calculations like e.g. balancings etc. by means of the integrated set of mathematical formulae.

The powerful and easy-to-use visualization allows to access the data from each workstation in the office. Coherences and chronological sequences can be easily analyzed with displayed process graphics, charts, and diagrams.

A well-arranged log allows to document important events in order to analyze them later e.g. with the help of trend diagrams.

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SR::x visualization

The data management system also contains an MS Excel add-in for direct access to the data stored in SR::x from MS Excel. With this feature, automated reports of relevant operating data that support the operation e.g. as daily and monthly values can be created immediately.

Reliable early detection of process changes

SR::SPC uses neural networks in combination with statistical tools for the automatic online analysis of the operating behavior.

By means of the SR::SPC module, creeping changes in the plant operation are detected automatically. For this, the current process is continuously compared to the expected behavior and assessed on the basis of high-quality key performance indicators (KPIs). In the case of statistically significant changes, this is reported as an event to the user, who is thus actively informed early on. SR::SPC is applied e.g. for monitoring bearing vibrations, pressure drops, and el. power consumptions.

The most important benefits at a glance: Data management SR::x

- Long-term archive with easy-to-use calculation function
- Powerful visualization
- MS Office integration
- Automated report generation

Predictive Analytics SR::SPC

- Automatic monitoring of important components
- Reliable alarming in the event of relevant process changes
- Full configurability and flexibility of the system for the user
- Comprehensive training program
- System maintenance with regular software updates and hotline by specialists of STEAG Energy Services

Contact person:
Heino Zimmermann
Phone +49 201 801-4032
heino.zimmermann@steag.com

STEAG Energy Services GmbH
System Technologies
Rüttenscheider Str. 1-3
45128 Essen
Germany
www.steag-systemtechnologies.com