



Instrumentation & Control

Instrumentation & Control – Benefits to the Owner

Challenge & Opportunity

The worldwide tight competition forces companies to produce goods of good value and quality in order to maintain a lasting business.

New concepts are required in order to reduce the production costs. One of the possibilities is, among others, the improvement of the overall plant efficiency by using high automation degrees, asset management and optimization.

Permanent data management delivers transparency through the whole process and supports short and flexible reaction to unforeseen events.



Automation & Instrumentation

Scope and limits of projects will be defined, their interfaces assessed.

The engineering covers:

- Determination of automation level
- P&ID development
- Logic and loops design
- Distributed intelligent function design
- Field bus technology planning
- Plant data networking
- Safety engineering
- Field instrumentation
- Tuning

Central & Remote Control

High product quality with good cost/performance ratio will be reached by means of Central Control or SCADA Systems.

Intelligent software functions guide and support the operators in:

- Continuous operation
- Automatic start-up, shut down and load changes
- Process estimation
- Switching operation
- Data management
- Decision making
- Work preparation

Diagnostic & Asset Management

Diagnostic systems evaluate the performance and degradation of the equipment.

Forecasted equipment fault likelihood benchmarks the availability and reliability.

Asset management functions calculate stress and remaining life time and support maintenance tasks like:

- Planned overhaul
- Unplanned outages
- Spare part availability
- Analyses for improved and optimized operation

Optimization & Saving

Optimization functions are using system modeling and forecast functions as basic input to create short-term schedules for an optimized portfolio management.

The plant operators consider these optimized schedules as reference input for their daily work preparation.

The forecasted schedules and the in reality used schedules can be compared; conclusions for improvements in future can be derived.

A homogenous data management system supports the engineering of optimization.

Benefits to the Owner

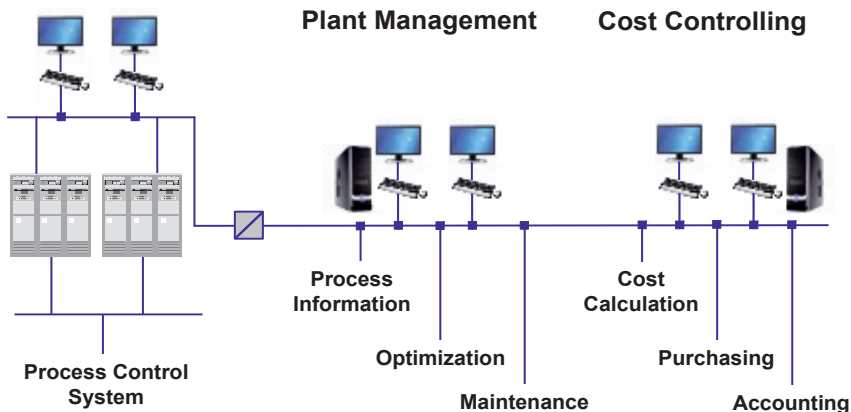
Such innovative systems provide a short return of investment.

The capital expenditure of their own is very low compared with the benefits and subsequent cost saving by:

- Increase of available production time by reduction of technical losses; hence higher plant effectiveness and reliability
- Optimized start-up, shut down and operation modes
- Increase of plant life time
- Optimized fuels and supplies consumption
- Lower heat rates
- Automatic detection of losses or malfunction
- Reduced maintenance efforts
- Lasting, homogenous data management
- Well informed and trained staff, optimized staffing
- Identification of improvement opportunities for daily plant operation and work preparation
- Improved contract management

Comprehensive Plant & Data Management

Plant Operation



Our Services & Features

- Project management
- Identification and definition of projects and interfaces
- Feasibility studies
- Design of systems
- Preparation of tender documents, tendering
- Evaluation and contract negotiation
- Approval of contractors documents
- Site management
- Workshop and site inspections, witness of tests
- Taking over certificates
- Claim management



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