

Information and Alarm Management Applications

Operating a process plant optimally means making the right decisions and acting accordingly. To optimize operation and maintenance, as well as providing safety and integrity, you should make sure the decision makers have the best possible tools and data available. The Information and Alarm Management applications are a suite of web applications meeting specific needs in various work processes related to daily operation and reporting. The applications can be made available in any environment, ensuring optimal availability and ease of use.

In most modern process plants, the total amount of data from instrumentation, virtual sensors and other sources are immense. Studies show that the average user spends a significant amount of her time looking for the right data from various sources.

In addition to help users reach better decisions, these applications helps meet government regulations with respect to reporting. This in turn reduces tedious work for personnel, as well as lowers the overall operational cost.

Plant Portal

Users should spend their time generating value through good decisions, rather than spending the time looking for data. The Plant Portal features allow users to streamline dashboards to create the optimal user experience for their daily operation.

Through a set of domain specific key performance indicators implemented as Microsoft .Net Web Parts, the user is offered high level information showing which parts of her particular



field of responsibility behaves well, and which does not. Web parts are provided by the various ABB integrated operations products, but also web parts from other vendors can be integrated.

Alarm Manager

Successful alarm management ensures optimal working conditions for operators while ensuring safe and predictable alarm and safety system behavior. The Alarm Manager provides a complete toolset for operators and alarm experts, ensuring plant integrity and meeting government requirements and industry guidelines.

Safety Support Applications

Safety support applications are a group of reports assisting in keeping an overview of safety valves, breakers, shutdown systems and blocked alarms. The applications enable a safety and integrity overview that minimizes the safety test scheduling. The applications document safety system operation whenever it is active during normal operation or

during planned or un planned shutdowns. This means you acquire documentation according to governmental requirements with minimum work and downtime.

Production Manager

During day to day operations, one of the simplest indicators of success is whether the production rates of your wells match the production plan developed by the production technicians. This product provides production technicians with an easy means of storing and communicating production plans with operations, as well as a simple way to follow up production and compare it to production plans. For wells where online allocation of rates is not available, the product provides a simple polynomial allocation.

Equipment Monitors

Monitoring the state of physical equipment enables condition monitoring and predictive maintenance philosophies. By using these monitors, expensive and hazardous inspection work in the field can be reduced, while improving the overall integrity and predictability of the plant.

Currently the Equipment Monitors cover two variants of equipment monitoring. Instrument monitoring indicates transmitter health based on comparison of several sensor outputs. Run time monitoring for equipment like motors and valves enables planning of inspection and maintenance intervals based on actual run time versus expected equipment lifetime.

Electronic Shift Logbook

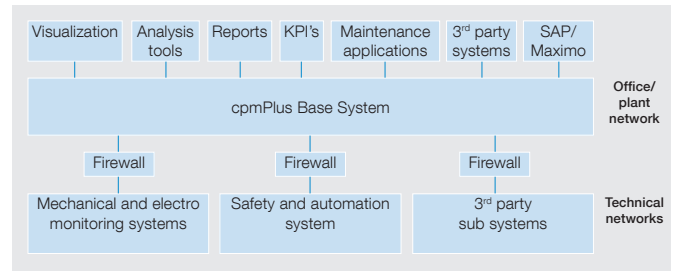
During one shift, a process plant is affected both by operator actions, various events as well as gradual changes. The Electronic Shift Logbook keeps track of plant changes and provides operators with an easy interface for documenting their decisions and actions. This enables operators in the following shift as well as maintenance planners and production technicians to better understand the state of the plant, and act accordingly.

cpmPlus Base System

The cpmPlus base system forms a data source representing all data available in the technical and control systems, to enable visualization and analysis. The system consists of a data historian storing high frequency measurements, alarms and events. The data historian is integrated with an object model supporting communication of meta data and business transactions.

All communication is based on open standards, and ABB sees great potential in following initiatives like OPC UA, PRODML, ISA 95 and ISO 15926.

Typical information management system topology



The figure shows information and alarm management tools utilizing a data store integrating technical systems and computerized maintenance management systems to offer unparalleled decision support.

Deployment

The ABB Information and Alarm Management Applications integrate seamlessly with the ABB Integrated Operations Base System, ensuring the optimal user experience. However, the applications also work well on process historians from other vendors as long as appropriate data though standard interfaces are available.

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