

Raising the alarm

Alarm rationalisation and management is vital if plant operators are not to be overwhelmed by a rapid proliferation of alarm systems.

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A WIDESPREAD ISSUE IN MANUFACTURING PLANTS IS ALARM OVERLOAD. AS formerly independent systems are integrated for more effective operation by fewer operators, each operator has to monitor an increasingly wider area and consequently deal with more alarms. Without rigorous alarm rationalisation, alarm flooding becomes a serious problem and increases the risk of safety and environmental incidents.

There are a number of fundamental guidelines, such as the Engineering Equipment and Materials Users Association's (EEMUA's) guideline No 191, which help customers reduce alarms, but practical tools that can be implemented are still in short supply. Yokogawa Electric Corporation proposes a new approach to alarm management based on the new Consolidated Alarm Management System (CAMS) concept, which combines practical bottom-up solutions with fundamental top-down improvements, helping customers achieve the goal of safe and agile plant operations.

Yokogawa has announced the launch of its Consolidated Alarm Management Software for Human Interface Station (CAMS for HIS), the world's first alarm management solution to use the CAMS concept. The CAMS concept helps customers avoid safety and environmental incidents as a result of alarm overload. It also enables customers to improve operational efficiency under normal conditions, freeing operators from tedious repetitive tasks and allowing them to focus on true process concerns.

Practical alarm management

The CAMS concept is practical and has an immediate effect. It accepts the fact that the sources of alarms are proliferating, while customer engineering time and resources are limited. Rather than relying solely on rigorous top-down alarm design and redesign, Yokogawa enables a practical, overarching real-time alarm management system that delivers the right information to the right people at the right time.

CAMS for HIS embodies the CAMS concept. In real time, it integrates the acquisition of all alarm and event (A&E) data, including data from subsystems; normalises and re-classifies this to eliminate incompatibility; allows customers to add useful alarm attributes such as user names, alarm purposes and

allowable time before action; groups the consolidated A&E data and removes redundant alarms; suppresses nuisance alarms; and enables the operator to focus on important alarms through filtering, sorting, eclipsing, shelving and load shedding. Through these innovative functions, CAMS for HIS, for the first time, allows customers to implement a real-time consolidated alarm management system with bottom-up flexibility.

CAMS for HIS also helps customers implement the top-down approach to alarm design by defining good alarms using attributes such as purpose, consequence and priority.

CAMS beneficiaries

Yokogawa urges those facing alarm overload situations in their plants to introduce CAMS for HIS. It also benefits those who are looking for alarm management capabilities that go beyond the current generation of DCS alarm systems. Customers planning to consolidate their control rooms and design their alarm systems to comply with EEMUA guideline No 191 guidelines (for the design, management, and procurement of optimum alarm systems) will benefit from this product's practical solutions.

Alarm rationalisation

The practical bottom-up approach is complementary to the fundamental top-down improvement initiative of alarm rationalisation. Alarms designed correctly, so that they do not define or generate nuisance alarms, go a long way towards preventing alarm flooding.

In addition to the new CAMS for HIS solution, Yokogawa also delivers field-proven tools and consulting services that help its customers assess the effectiveness of their current alarm systems, identify the root cause of problems and take appropriate action to rationalise alarms. Yokogawa helps its customers combine practical bottom-up solutions with fundamental top-down improvements to build and sustain effective alarm systems for safe and agile plant operations. ●

FURTHER INFORMATION

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