

Alarm Rationalization

“Reduce up to 93%* of nuisance alarms”

Why is alarm rationalization important?

As plant operations become more complex, proper alarm monitoring becomes very critical to the correct operation of the plant. Alarm flooding and improper alarm settings can pose a risk that may lead to serious plant damage, lost production, environmental incidents, and injury or even loss of life. Alarm rationalization is crucial to ensure that manufacturers will be able to maintain properly functioning alarm systems throughout the plant lifecycle.



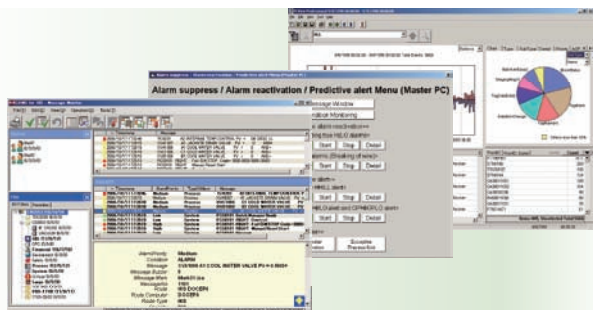
Before



After

What are the advantages?

Yokogawa's Alarm Rationalization Services are solutions to sustain your alarm system performance throughout plant lifecycle and are provided in three phases. Clients are allowed to proceed immediately to the phase that corresponds to the current status of their alarm rationalization activities.



CAMS and associated alarm management solutions

Fundamental Nuisance Alarm Reduction is the preparatory service to identify the root causes of existing nuisance alarms and take proper countermeasures to reduce them using Exaplog.

EEMUA #191-based Alarm System Design is the main service to establish the consistent policy for alarm system design based on EEMUA guideline and incorporates it with CAMS (Consolidated Alarm Management System).

Operational State-based Alarm Management is the additional service to manage alarm thresholds and alarm suppression based on the different operational states using AAASuite.

* Actual results will depend on the installation.

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DMAIC

Yokogawa's alarm rationalization service is based on standardized Six Sigma DMAIC methodology. This provides clear and effective steps to achieve a defined target while ensuring consistent and high levels of service quality.

	Define step 1	Measure step 2	Analyze step 3	Improve step 4	Control step 5
Phase 1 Fundamental nuisance alarm reduction	<ul style="list-style-type: none"> Establish cross-section task force Set target alarm system performance in steady-state operation 	<ul style="list-style-type: none"> Acquire A&E logs for multiple operational states 	<ul style="list-style-type: none"> Sort acquired A&E logs Identify root causes of nuisance alarms through team discussion Decide proper countermeasures to reduce them 	<ul style="list-style-type: none"> Take practical countermeasures within two months 	<ul style="list-style-type: none"> Evaluate improvement effect Confirm remaining actions Report on results of service
Phase 2 EEMUA #191-based alarm system design	<ul style="list-style-type: none"> Establish cross-section task force Set target for alarm system performance during plant upset Hold on-site CAMS training for team members 	<ul style="list-style-type: none"> Acquire necessary information regarding current design policy Acquire A&E logs for past plant upset (where possible) 	<ul style="list-style-type: none"> Analyze acquired information to identify improvements Establish new design policy based on EEMUA #191 guideline 	<ul style="list-style-type: none"> Incorporate new design policy in CAMS within two months 	<ul style="list-style-type: none"> Evaluate improvement effect Report on new design policy
Phase 3 Operational state-based alarm management	<ul style="list-style-type: none"> Establish cross-section task force Set target for alarm system performance in steady-state operation Hold on-site AAASuite training for team members 	<ul style="list-style-type: none"> Acquire A&E logs and historical trends for multiple operational states 	<ul style="list-style-type: none"> Analyze acquired data to decide target operational states and tags Analyze acquired data to decide proper alarm threshold or AON/AOF condition Consider application of DCS sequence program for automatic switchover 	<ul style="list-style-type: none"> Incorporate new policy in AAASuite package Incorporate DCS sequence logic for automatic switchover Debug implemented application with FCS test function 	<ul style="list-style-type: none"> Evaluate improvement effect Report on new design policy

*1 This is a consulting service for CAMS for HIS (Phase 2)/AAASuite (Phase 3) installation.

*2 This service is provided by executing the above five steps of the DMAIC cycle.

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The clear path to operational excellence

SEE
CLEARLY

KNOW
IN ADVANCE

ACT
WITH AGILITY

VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

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