DynAMo Alarm & Operations Management

Delivering operations integrity through better plant safety, availability and compliance across your entire enterprise

Honeywell's DynAMo Alarm & Operations Management solutions deliver advanced capabilities for alarm system compliance, monitoring and rationalization. With automated enforcement of alarm policies, measurement and reporting of alarm system performance, notification and alerting of operational problems, and best practice workflows for the communication and visualization of operational objectives – all in a single unified platform and user experience.

This comprehensive set of software enables best-in-class operational management, with rigorous compliance to API, EEMUA, ISA and IEC global standards for alarm management and integrity operating windows.

Honeywell's Alarm & Operations Management solutions are **vendor neutral**, which means they work with any control system: DCS, SCADA, PLC etc., and with 2500+ installations are found at over 750 unique sites worldwide.

Control Magazine Readers' Choice Awards and Engineers' Choice Awards for 2015 recognized Honeywell's DynAMo solution as the #1 Alarm Management software solution.

The following DynAMo software is available to meet your operational goals:

- **Metrics & Reporting**: for alarm system benchmarking, compliance, assessment and advanced KPI monitoring.

- **Documentation & Enforcement**: for integrated alarm help and operator assistance, enforcement, rationalization and alarm system change management.

- **Alerts & Notification:** for advanced alarm and real-time integrated process related alerts and escalation.

- **Operations Monitoring**: for driving informed decisions and operational compliance through safe and profitable operating windows.

- **Operations Logbook**: for keeping an integrated electronic log of what happened, including 'smart' shift summaries and secure shift handovers.

Proven Benefits of Alarm & Operations Management

- Faster recovery from abnormal situations

- Reduction in unplanned downtime

- Analyze health of the alarm system at a glance through customizable, role-based dashboards

- Increased situational awareness of operations

- Fast return on investment (ROI)

- Reduction in overall and nuisance alarms by up-to 80%

- Improved understanding and closer adherence to operational objectives resulting in increased throughput

- Dramatic reduction of operating incidents

Metrics & Reporting

The DynAMo Metrics & Reporting software enables quick identification of existing and emerging problem areas, benchmarking against industry standards and prioritization of activities to improve alarm system and operational performance. It provides metrics and reporting with single window views into the alarm system to ensure regulatory compliance. Its customizable, role-based dashboard allows operators, engineers and managers to view the health of their alarm system at a glance. The dashboard is mobile device compatible for viewing alarm metrics anytime, anywhere.

Quickly identify the highest ROI changes to your automation system

It seamlessly collects and stores alarm and event data from any data source and automatically generates web-based, standards-compliant (EEMUA 191 and ISA 18.2 and IEC 62682) key performance indicator (KPI) reports that give an accurate snapshot of a site's current alarm system performance.

Proven Benefits of DynAMo Metrics & Reporting

- Reduction in nuisance alarming by up-to 80%
- Standards, insurance and regulatory compliance
- Improved operational awareness/incident avoidance
- Fast and thorough incident reviews
- Improved health of alarm system through customizable, role-based dashboard
- Anytime, anywhere access to alarm metrics in mobile device compatible dashboards
- Helps monitor operator workload
- Increases plant uptime and safety
- Reduced losses and incidents caused by ineffective alarming
- Increases operator effectiveness by reducing the number of alarms requiring operator intervention

Key Capabilities of DynAMo Metrics & Reporting

- DCS independent, connects to any control system – DCS, SCADA, PLC, etc.
- Alarm and event capture and storage
- Trend with events – process and alarm data in one view
- Enterprise repository and reporting capability
- Live viewing, filtering and analysis (multiple standard reports) over thin web clients
- Report scheduling and ad hoc queries
- IT-friendly. Robust firewall and DMZ support
- Low cost of ownership

Identify problem areas and compare against industry standards

Documentation & Enforcement

DynAMo Documentation & Enforcement software provides comprehensive alarm system documentation, ongoing enforcement of alarm limits, integrated alarm help, intuitive reporting in support of change management, and convenient offline configuration. It also enables lists of exceptions to the typical alarm configuration to be made, to support the handling of various plant operating modes and states.

Without software that keeps track of alarm limits, configuration, and rationalization of alarms, a plant or asset can deviate from its engineered/designed specification. This can result in more alarms, while safety issues can arise as alarms are disabled, shelved, or turned off without any tracking. This can lead to alarm floods, upset conditions or even catastrophic failure.

Proven Benefits of DynAMo Documentation & Enforcement

- Standardization of the process through definition of a plant alarm policy so that consistent alarm settings are available to all staff
- Improved response time of operators – reduce the time from alarm activation to proper action
- Fewer human errors in the management of alarms, avoiding unnecessary production stops, equipment failure, vents, etc.
- Protection of plant uptime and safety by reducing losses caused by ineffective alarming
- Increased operator effectiveness by reducing the number of alarms that require operator intervention
- Reduced time and effort to develop, deploy, and maintain an alarm system that is consistent with ASM Consortium, ISA, EEMUA, IEC and API standards, guidelines and best practices

Key Capabilities of DynAMo Documentation & Enforcement

- Alarm help – Interactive system that provides alarm documentation, limits, causes, consequences, and corrective action for each alarm. Available via web browser and Experion console
- DCS independence – connects to any control system
- Backup enforcement – ensures that critical alarm enforcement actions are executed
- Low cost of ownership

Alerts & Notifications

DynAMo Alerts & Notifications software complements the alarm system to make operators aware of special or abnormal conditions. It monitors values on the control system and then notifies the operator once the configurable conditions, as set by the user, equate to true.

DynAMo Alerts & Notifications reduces the load on an operator by automatically monitoring process conditions and providing early automatic notification of events. It notifies operators of user-defined, time-sensitive and process value-based conditions. Automatic notification helps prevent abnormal events and makes certain that required tasks are not forgotten.

Historically, a genuine alarm philosophy evolved that resulted in alarms configured for all potential situations regardless of urgency and required action – especially during startup of new equipment and/or processes. However, this leads to over-burdening the operator with too many alarms, at which point they will ignore them. This can result in important alarms being missed. Implementation of an alerting system enables alarms to be given the attention and action they deserve while alerts can be attended to when time permits.

Best practices suggest that for every alarm, an operator action is required. However, there may be special conditions that arise that the operator would like to be aware of but not necessarily take action on. DynAMo Alerts & Notifications integrates with the existing alarm system to help in precisely this way. This DCS-independent solution works on any control system that has an OPC server.

Proven Benefits of DynAMo Alerts & Notifications

- Improved operator effectiveness
- Early detection of abnormal situations
- Increased unit integrity and operator confidence
- Reduced alarm flooding
- Better operator awareness of current operating conditions

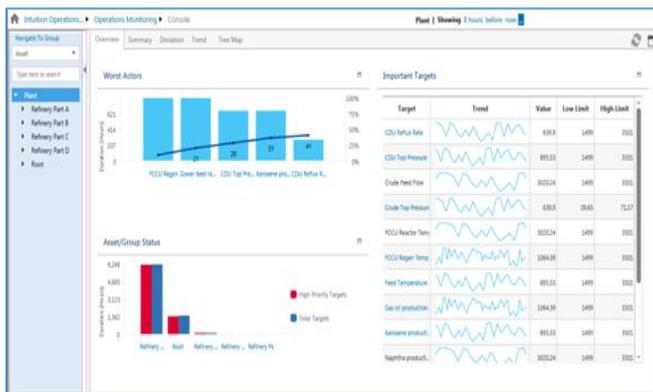**Key Capabilities of DynAMo Alerts & Notifications**

- DCS independence – connects with any control system
- Experion integration – Alerts show up on the operator console in a layout which is familiar to the operator. DynAMo Alerts & Notification can make the necessary connections without the need to purchase OPC licenses
- Efficient – Robust, proven software that monitors hundreds of conditions in real-time

Operations Monitoring

Operations Monitoring software systematically monitors process plant performance data and summarizes deviations from the operating plan. It is ideally suited for tracking operating performance against targets and highlighting problem areas. It can be used to identify the causes of downtime and production inefficiencies so that users control and manage their operations more efficiently and reliably.

Proven benefits of Operations Monitoring

- Reduced number and severity of incidents
- Reduced operating and maintenance costs through increased asset reliability
- Better safety and environmental compliance through improved knowledge of problem areas
- Increased operating margins through better fidelity to the operating plan

Proactively monitor critical limits and deviations from safe and profitable operating windows.

Key Capabilities of Operations Monitoring

- Monitor thousands of targets to assure operators are operating within the best operating zone
- Reduce integration costs by taking advantage of the built-in integration with Operating Instructions, Operations Logbook, Documentation & Enforcement, and other Honeywell products
- Minimize administration costs with a web user interface
- Employ standard backup and auditing tools to ensure business continuity

Operating Instructions

Operating Instructions (manages and communicates the operating plan to operators. A planner, supervisor or engineer prepares detailed instructions for a unit, including numerical targets and notes. Instructions must be approved and activated. Once activated, the targets are downloaded. Operations Monitoring and other applications such as Alerts & Notification can then monitor the targets to inform the operator when they deviate from the operating plan.

Proven Benefits of Operating Instructions

- Reduced energy, catalyst and consumables use
- Improved product quality, less scrap, reduced recycling and better equipment utilization
- Increased operating margins through fidelity to the operating plan

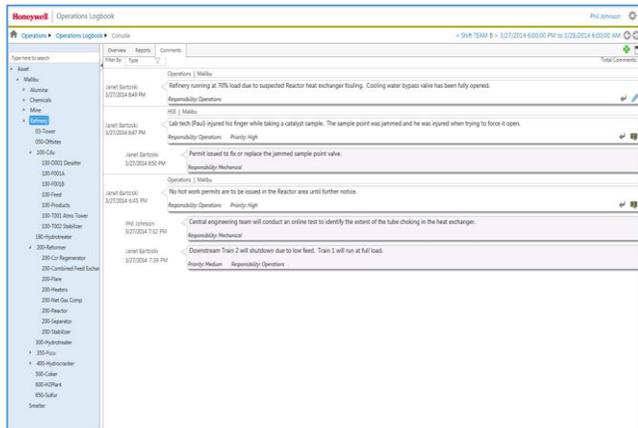## Key Capabilities of Operating Instructions

- Provides instructions for any node in the asset hierarchy. Each instruction can contain notes, numerical targets for hundreds of process variables and a formulation that defines feeds and products
- Group instructions in production orders for same or different times and assets
- Numerical targets are automatically validated against limits configured in the Limit Repository, a comprehensive limit management database delivered with Operations Monitoring
- Import/export production orders and instructions from external systems
- Minimize administration costs with a web user interface
- Employ standard backup and auditing tools to ensure business continuity

Operations Logbook

Operations Logbook is an electronic log to record what happens in a shift. It allows ad hoc entry of comments and observations, tracks daily to do items, and prepares the shift handover report to reduce handover time and any potential for operator error.

Proven Benefits of Operating Logbook

- Effective shift handover results in reduced number and severity of incidents

- Better communication improves situational awareness that reduces operating equipment outside of operating ranges. Operating and maintenance costs are reduced through increased asset reliability

- Better safety and environmental compliance

- Increased production through learning from and avoiding incidents

Seamlessly integrates with DynAMo Metrics & Reporting, Operations Monitoring, DCS and Plant Historians.

Key Capabilities of Operating Logbook

- Shift summary reports are created from templates by operators every shift, for selected nodes in the asset hierarchy. These templates define standard information to enter in every shift, and information pulled from other applications

- With the ability to create scheduled and ad hoc tasks, a department-wide to-do list is created with completion times, responsibilities, and procedures

- Allows ad hoc entry of comments and observations

- Search comments entered in Operating Instructions, Operations Monitoring, and Operations Logbook

- Minimize administration costs with a web user interface

- Employ standard backup and auditing tools to ensure business continuity

Support Services

All products come with worldwide, premium support services through our Benefits Guardianship Program (BGP). BGP is designed to help our customers improve and extend the usage of their software applications and the benefits they deliver, ultimately maintaining and safeguarding their software investment.

For More Information

To learn more about how Honeywell's Alarm & Operations Management solutions can help ensure safe and profitably production in your operating plants, visit our website www.honeywellprocess.com/software or contact your Honeywell account manager.

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