



# ALARM MANAGEMENT | REPORTING

## PRODUCT INFORMATION NOTE

Helps optimize alarm system performance at any industrial site, regardless of size or control system type; leading to improved plant safety, availability, and compliance across an organization's entire enterprise.

### What is an Alarm?

ANSI/ISA18.2 defines an alarm as “An audible and/or visible means of indicating to the operator an equipment malfunction, process deviation, or abnormal condition requiring a timely response”<sup>1</sup>.

### What is Alarm Management?

The EEMUA 191 definition of Alarm Management is “The processes and practices for determining, documenting, designing, monitoring, and maintaining alarm systems”<sup>2</sup> to ensure safe, reliable operations.

### The Alarm Management Process

Alarm Management standards in essence recommend three 3 key loops or pillars to achieve the optimum alarm system performance:

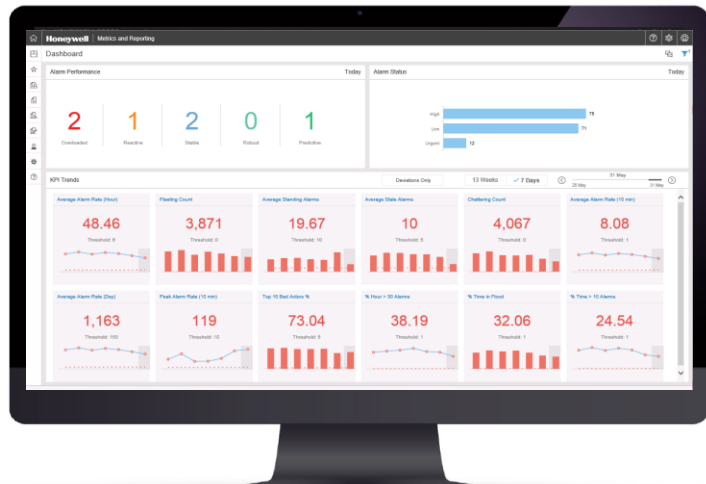
- Philosophy - How your alarm system is designed, implemented and maintained
- Maintenance - How you implement and manage change in your alarm system
- Monitoring – How you measure real-time performance of your alarm system

### Software Can Help

Honeywell Forge Alarm Management provides a suite of control system agnostic offerings to accelerate the alarm management process and help you better protect your people, equipment, the environment, and organizational profitability.

## THE CHALLENGE

Global standards and best practices such as ISA 18.2, EEMUA 191 and IEC 62682 make alarm system monitoring and assessment a must have. Regulatory and insurance compliance requirements aside, industrial organizations need control room operators to focus on the right alarms to avoid abnormal situations that can impact people, plant, the environment, and profits. Using software tools that continuously measure actual alarm performance, while helping to diagnose root causes and investigate incidents is essential to efficient alarm system improvement.



## THE SOLUTION

Honeywell Forge Alarm Management | Reporting (“The Reporting module”), is part of the suite of industrial-focused products in Honeywell Forge, an Enterprise Performance Management offering. The Reporting module enables quick identification of existing and emerging problem areas, benchmarking against industry standards with prioritization of activities to improve alarm and operational performance. It provides analysis and reporting of key performance indicators (KPIs) from a single fully integrated portal. Its customizable, role-based dashboards allow operators, engineers, and managers to view the health of their alarm system at-a-glance, anytime, from anywhere. The Reporting Module can be installed standalone or with one or more of the other offerings in the Honeywell Forge Alarm Management Suite.

1 - EEMUA Publication 191 Alarm systems - a guide to design, management and procurement - available [here](#)  
2 - ANSI/ISA-18.2-2016, Management of Alarm Systems for the Process Industries - available [here](#)

## BENEFITS

The Reporting module is designed to help companies achieve the highest possible return on investment from their production assets through better real-time alarm system performance. It helps achieve and sustain safe, reliable plant operation by empowering alarm champions to provide operators with an alarm system that delivers the information they need to take effective action when confronted with abnormal situations.



*\* Benefits based on Honeywell Forge Alarm Management customer observed outcomes*

## KEY FEATURES AND CAPABILITIES

The Reporting module seamlessly collects and stores alarm and event data from multiple data sources, and automatically generates web-based, standards-compliant (EEMUA 191, ISA 18.2, IEC 62686 and more) KPI reports that give an accurate snapshot of a site's current real-time alarm system performance. This enables quick identification of existing and emerging problem areas whilst prioritizing activities to improve both alarm system and operational performance, allowing users to.

- Reduce the time to identify and problem areas and those at greatest risk from non-compliance
- Accurately compare performance against industry standards and other assets in their enterprise
- Quickly identify the fastest changes to their control system to yield the greatest return on investment.

The Reporting module helps organizations achieve an alarm management model that improves operational performance while meeting regulatory compliance and safety standards, with the following key capabilities:

- Control system independent, connects to any DCS, SCADA, PLC, etc.
- Customizable, role-based dashboard allows operators, engineers, and managers to view the health of their alarm system at-a-glance
- Dashboards are mobile device compatible for viewing alarm metrics anytime, anywhere, with live viewing, filtering, and analysis with multiple standard reports over the web
- Customized report scheduling and ad hoc queries
- Make alarm Key Performance Indicators (KPIs) available externally through documented APIs
- Better maintain the performance of your alarm management systems with built-in system health monitoring

## KEY COMPONENTS

The Reporting module is designed with scalability in mind, and consists of deployable software components for collection, archiving, analytics, and viewing. These components provide the following features:

- Identifies alarm type, time, description, value, etc. from an event
- Reads alarm and event messages from a multitude of connections methods – Serial, File, OPC A&E, ODBC, etc.
- Collects data even when computers are logged out or restarted
- Helps to view predefined reports, perform sequential queries and statistical manipulation on the data in web-based interactive reports
- Supports an enterprise architecture – with local sites reporting to a centralized corporate/regional server.

## WEB-BASED REPORTING AND ANALYSIS

The Reporting module provides interactive, out-of-the-box web reports to effortlessly view and easily analyze the health of your alarm systems. These range from simple tag-based information to more advanced, aggregated KPIs for a unit, site, or enterprise installation. The reporting and analysis capabilities available enable key alarm management use cases to be addressed, including:

- **Assessment:** Performance against standards, console operator workloads
- **Analysis:** Alarm rates, priority distribution, alarm floods, plant upsets
- **Identification:** Bad actors, root causes, alarm suppression schemes
- **Review:** Operator actions, response times, and alarm shelving behaviors
- **Diagnosis:** Complex sequences of events, event data and process data correlations

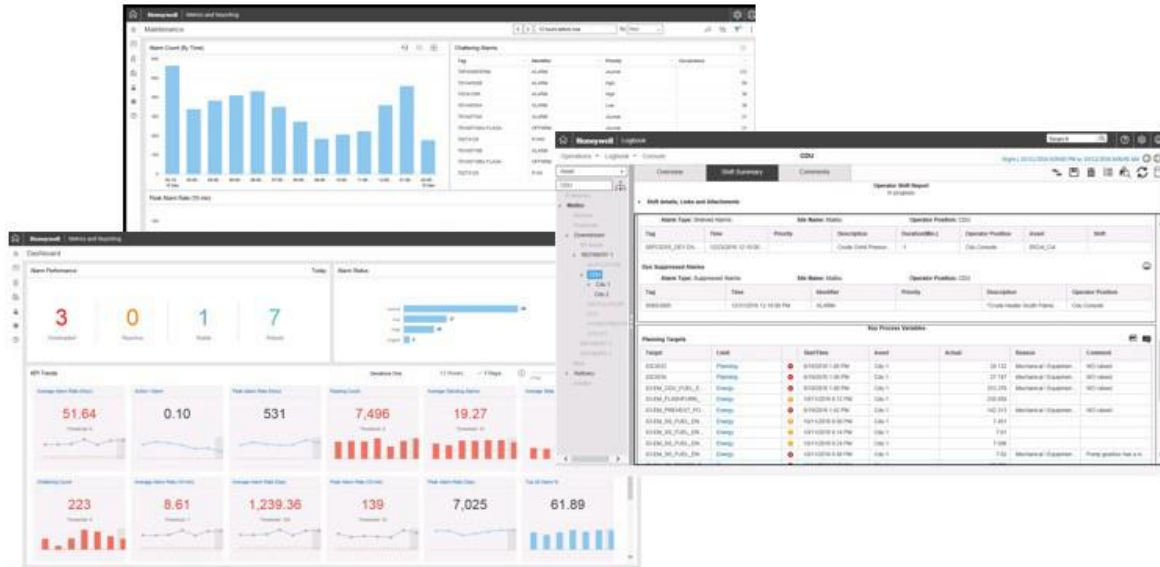


Figure 1: Identify and resolve problem areas against standards to assist rationalization

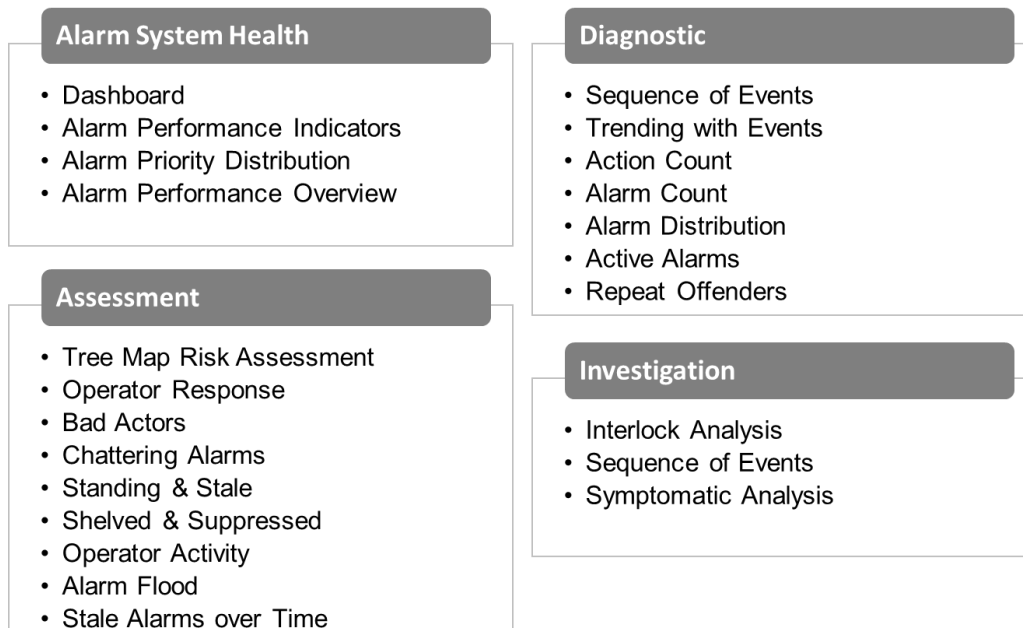


Figure 2: Out-of-the-box Reporting and Analysis tools

# INNOVATIVE SMART REPORTING

Smart Reports change the way you analyze alarm problems, bringing together key analysis components into a centralized group of reports. This prevents users from having to run multiple separate reports to find the root cause of a problem: simply drop any standard reporting 'widget' onto the Report Layout Manager and it will automatically connect to any other reporting widget on the same template, and seamlessly share its data and interact.

Smart reports allow even the most inexperienced alarm management users to quickly identify and solve plant issues in a fraction of the time it would normally take.

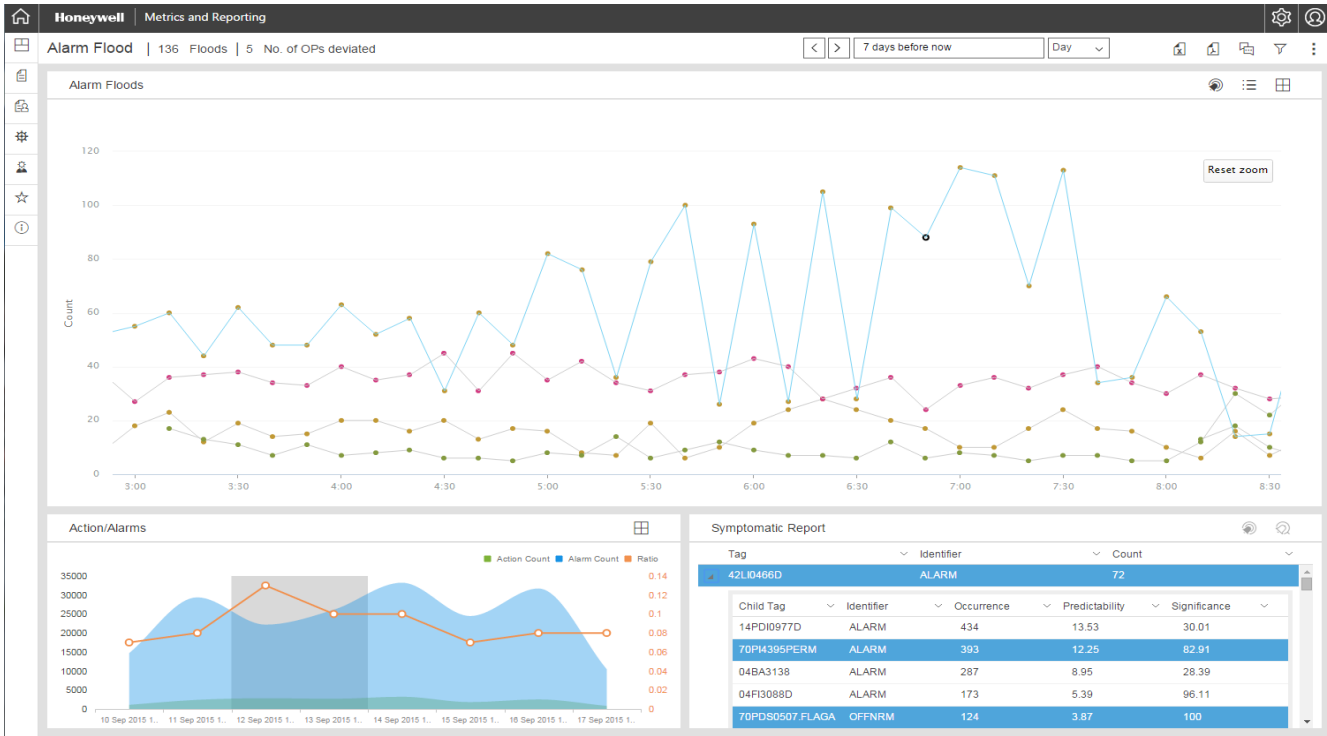


Figure 3: Smart Reporting

# SCALABLE DEPLOYMENT: ON-PREM OR CLOUD, FROM SINGLE SITE TO GLOBAL ENTERPRISE

The Reporting module is designed for numerous deployment options, from a single site on the process control network, to a centralized cloud-deployed instance handling alarm data across multiple network layers from multiple sites.

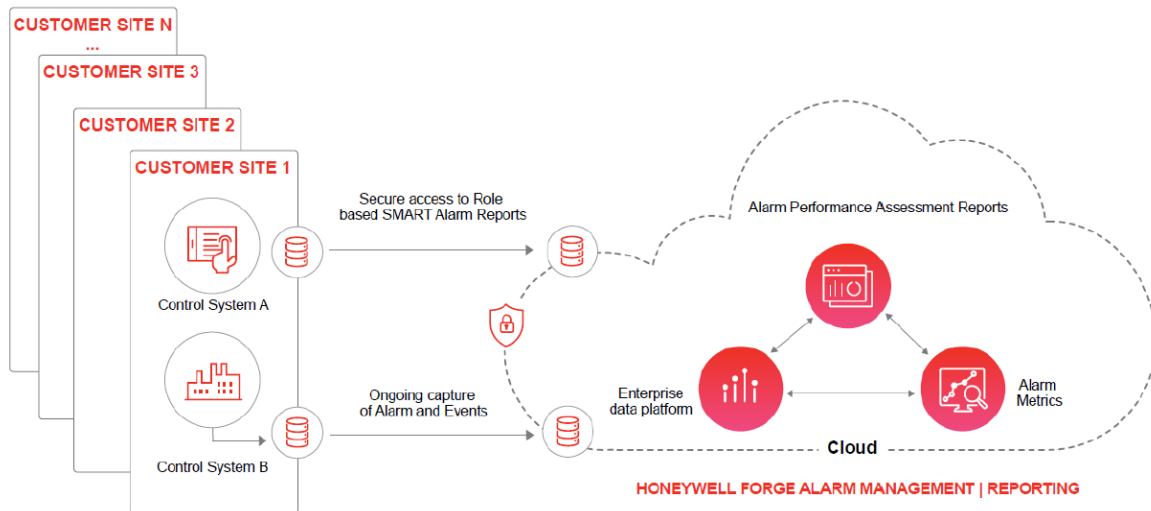


Figure 4: Example Deployment Architecture

## THE HONEYWELL FORGE ALARM MANAGEMENT PORTFOLIO

The Reporting module is part of the Honeywell Forge Alarm Management portfolio, a suite of control system agnostic offerings that enable industrial organizations to understand, improve and sustain alarm and safety system performance. Using Honeywell Forge Alarm Management, organizations can cut through the noise to demonstrate compliance, increase operator effectiveness, and minimize operational risk across their industrial operations. Honeywell Forge Alarm Management represents the evolution of the award winning, and industry acknowledged Alarm Management software, previously marketed with the DynAMo® brand name

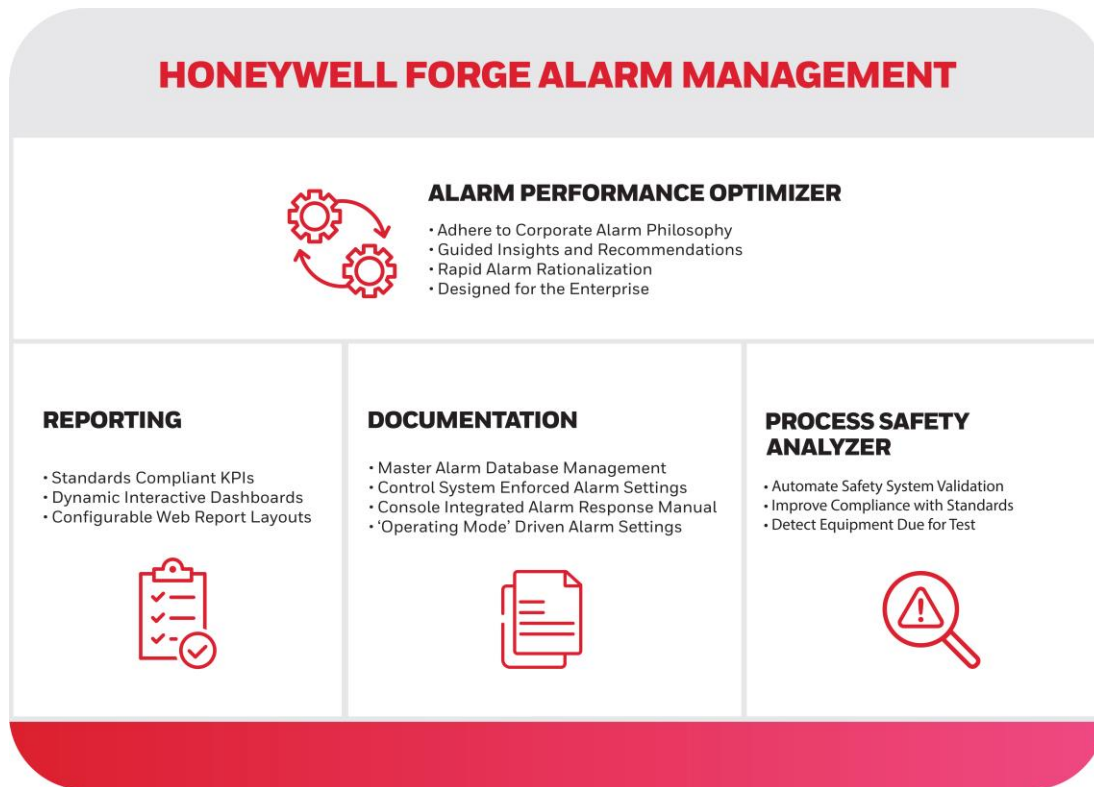


Figure 6: The Honeywell Forge Alarm Management portfolio

## WHY HONEYWELL?

We bring to bear the process industry's most extensive engineering and consultancy experience, with the ability to guide you through the complete alarm management lifecycle. Leading edge software is combined with a best-in-class services portfolio to give you the right tools and services to develop, execute, and manage your alarm management strategy.

This offering connects to and relies upon customer's equipment and infrastructure. It is the customer's sole responsibility to ensure such equipment and infrastructure are properly maintained and to confirm findings from the offering regarding that equipment and infrastructure.

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### For More Information

To learn more about how Honeywell's alarm management solutions can improve safety and reliability at your plant, visit our website, [www.hwll.co/alarmanagement](http://www.hwll.co/alarmanagement) or contact your Honeywell account manager.

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## Honeywell Connected Enterprise

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