

DeltaV™ Alarm Mosaic

- Alarm floods are less likely to overwhelm the operator, and are easier to diagnose
- Enables more efficient and comprehensive shift transitions with a one-click visualization of the alarms and control actions that occurred on prior shifts
- Provides a zero-configuration second level of protection against alarm floods



DeltaV™ Alarm Mosaic helps operators respond to a large number of alarms efficiently and correctly to minimize risks to safety, health and the environment.

Introduction

Alarm Mosaic provides dynamic visualization of current active alarms for a highly comprehensible view of alarm floods. Operator actions are integrated into Alarm Mosaic views for efficient operator evaluation of actions that may have contributed to the alarms. A history view in Alarm Mosaic enables comprehensive shift transition discussions of alarms and actions occurring in previous shifts.

Alarm rationalization and subsequent implementation of basic and advanced alarming methods form the first layer of defense against alarm floods, eliminating them before they happen. However when these prevention methods fail, either because they have not been fully deployed across the plant or unforeseen conditions arise, Alarm Mosaic can help by providing operators with an easier to comprehend view of the alarm flood accompanied by tools to help identify root cause conditions more quickly.

Alarm Mosaic runs on the local operator workstation for maximum performance and reliability.

Benefits

Alarm Mosaic is a licensed feature for DeltaV™ Operator workstations, providing the following benefits:

Alarm Mosaic minimizes the risk that operators will respond slowly or incorrectly during an alarm flood, through a graphical alternative to the classic alarm list that reduces stress, helps maintain situational awareness and aids in root cause identification.

Operators can view a large number of alarms at once, unlike the classic alarm list where the number of alarms visible at a time is limited by the number of visible rows.

Operators can quickly evaluate relationships between control actions and new alarms.

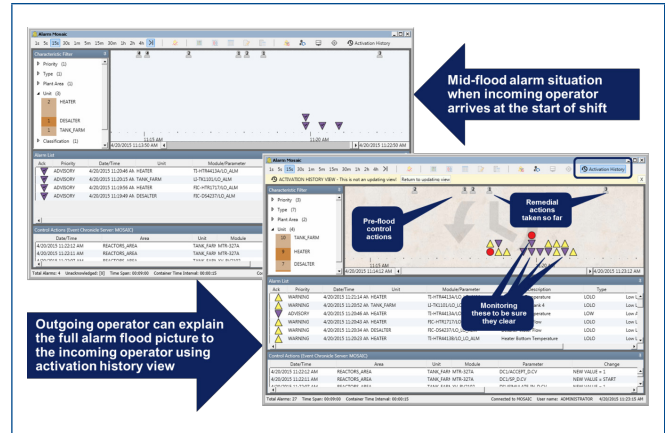
Operators can quickly and easily evaluate shared alarm characteristics such as alarm type or assigned primary display. Shared characteristics can help identify the common root cause for an alarm flood.

Alarm Mosaic provides an intuitive graphical view of current active alarms, with good visibility at a distance, making it ideal for use in control room overview displays.

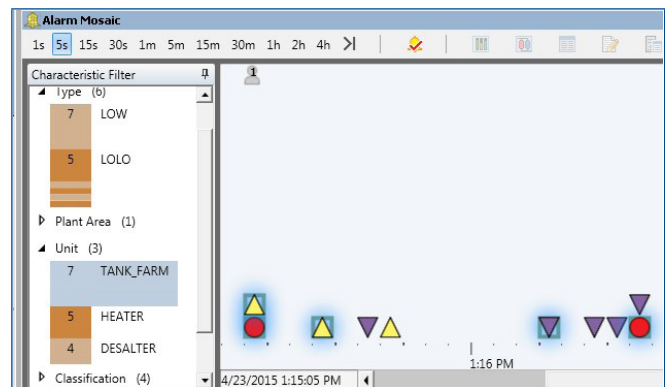
An alarm activation history view based on the Event Journal enables previous alarm floods to be revisited, along with the control actions that were taken, for shift transition meetings and post alarm flood analysis.

Product Description

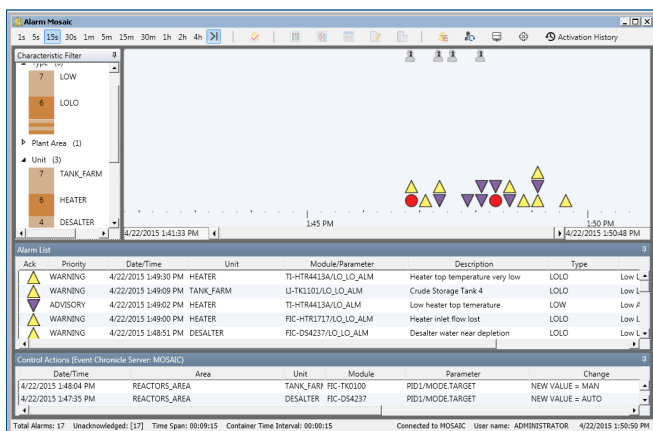
- Available for the DeltaV v13 release, and for V12.3.1 systems that have been enabled for Alarm Mosaic per Knowledge Base Article AK-1600-0003.
- Alarms are represented as icons, plotted by age, with new alarms appearing on the right and moving to the left as they age. As many as 500 alarms are visible in the current active alarm view. As many as 1000 alarms are visible in the activation history view.
- Time magnification is user selectable, from one second to four hours per icon display grid column.
- Icon color and shape designate alarm priority. In the active alarm view acknowledged alarms are checked and unacknowledged inactive alarms are dimmed.
- An alarm list provides text information for each alarm.
- A control action list identifies changes recorded in the event log, excluding alarm acknowledgements.
- An alarm characteristics view identifies traits shared by the alarms; area, unit and primary display assignment, functional classification, type, source and priority. Alarms can be multi-selected based on trait. Alarms can be filtered by trait.
- Context menus allow acknowledgement, and the call up of primary, faceplate, detail or alarm help displays.



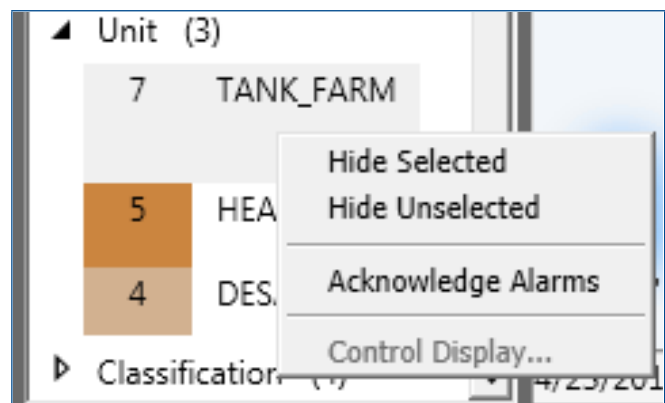
Shift transitions represent a critical moment, especially if an alarm flood is in progress. The Alarm Mosaic Activation History View allows the incoming operator to observe alarms and control actions from the prior shift.



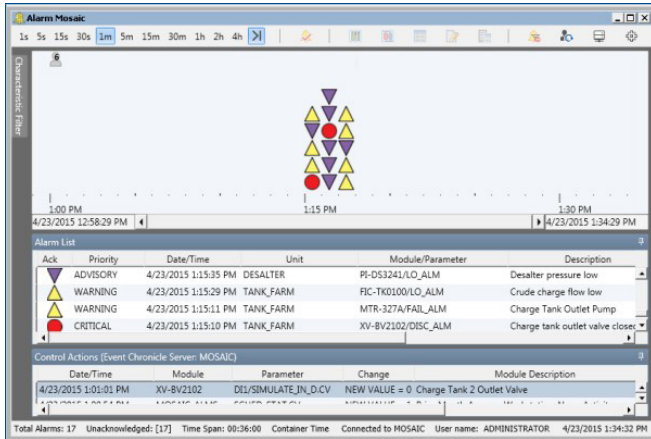
Alarm with common characteristics are automatically identified, enabling the operator to more easily comprehend the overall situation.



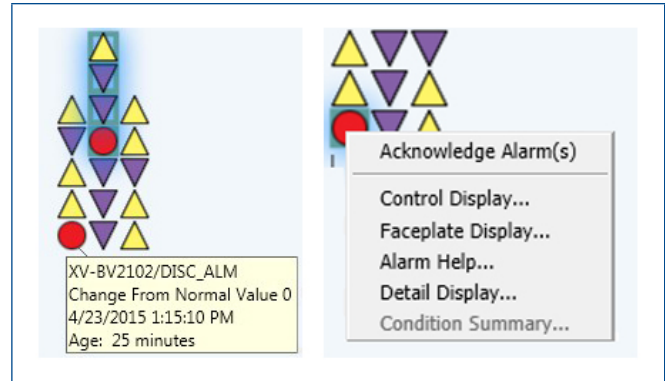
Alarms are presented iconically, cross-linked to the alarm list and time-related control actions. The current active alarm view presents alarms that are active or waiting acknowledgement.



With a single mouse-click the operator can mass acknowledge, filter out, or select only the alarms with a shared characteristic.



Mosaic relates alarm and control action timing. In this example, the operator can easily check the relevance of the 6 operator actions about 14 minutes before the flood.



A mouse hover provides easy alarm identification without disturbing current alarm selections. The alarm context menu provides fast display switching, presentation of Alarm Help and Acknowledgement functions.

Ordering Information

Description	Model Number
DeltaV Alarm Mosaic for Single Operator Station	VE2135
DeltaV Alarm Mosaic for Five Operator Stations	VE2135S05
DeltaV Alarm Mosaic for Ten Operator Stations	VE2135S10
DeltaV Advanced Server Alarming for All Operator Stations Equivalent to an unlimited number of VE2135 Alarm Mosaic and VE2149 Alarm Help single workstation licenses, applied at the ProfessionalPlus Workstation	VE2136

Application Notes

- Alarm Mosaic is available for DeltaV v13.3 or higher systems, and for V12.3.1 systems that have been enabled for Alarm Mosaic per Knowledge Base Article AK-1600-0003.
- Alarm Mosaic may be assigned to a Professional, Operator, Maintenance or Base Workstation.
- Alarm Mosaic is not available for Application Stations.
- Alarm Mosaic is compatible for use with both DeltaV Live and DeltaV Operate environments.

Related Products

- **DeltaV Alarm Operations.** The basic DeltaV system provides a rich set of standard alarm operations capabilities to make operating, maintaining and auditing alarms easy and efficient.
- **DeltaV Alarm Help.** A simple, flexible and highly dependable solution to provide operators with in- context one-click access to alarm instructions.
- **DeltaV Live.** Emerson's modern, built-for-purpose operator interface that was introduced with DeltaV v14. DeltaV Live delivers a high performance HTML5-based operations experience and simplified graphics configuration, all in an intuitive and customizable format with out-of-the-box simplicity.

- **DeltaV Operate.** High performance operator graphics, trends and alarms offered in standard operating layouts and utilizing system-wide built-in security.
- **DeltaV Analyze.** Configuration-free analysis of DeltaV system alarms and event with web page viewing and an alarm statistics report based on EEMUA-191, IEC 62682 and ISA-18.2 performance indicators.

More Information

To see a brief video of Alarm Mosaic in action visit the website DeltaV.com and click on the Alarms link. Also on this page are whitepapers describing methods to eliminate alarm floods through Alarm Rationalization and the use of Dynamic Alarming Modules.

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