

Alarm Activity Analysis with LogMateAMS™



Overview

LogMateAMS is a complete solution for alarm management, including alarm activity analysis, configuration documentation and analysis, alarm rationalization, and management of change. This document explains in practical detail the major functions and purposes of LogMate alarm activity analysis.

LogMateAMS activity analysis covers typical categories as well as some highly advanced tools that are only available to LogMateAMS users.

Alarm Activity Analysis Types

Flood

A flood analysis identifies the start and end of an alarm flood and displays the total number of alarms activated as well as the duration of the flood. The definition of "flood" is configurable by the user in terms of alarms per period of time. Results disclose the number, duration, and intensity of floods for the time period in question.

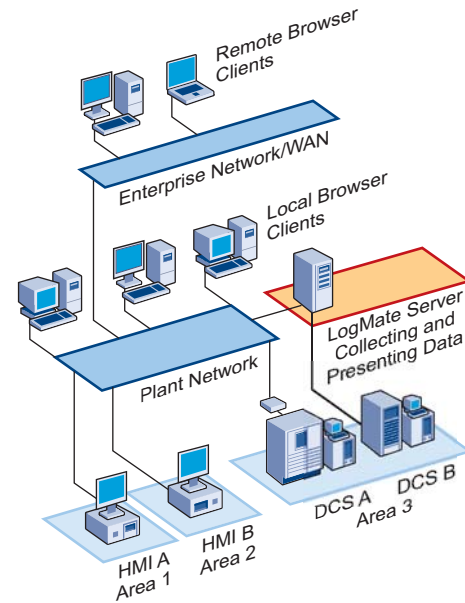
Alarm State

The alarm state analysis relates alarm activity to alarm clears and operator acknowledgements. The gap between activations and acknowledgements indicates an alarm's perceived value or the ability to fully assess the alarm's meaning during runtime.

Nuisance

A nuisance analysis distinguishes chronically overactive alarm behavior from short-term increases in activity. When an alarm is returned in the top results of a frequency analysis it is not This clarifies whether the activity is spread over a long or short term, i.e. is it a long-standing nuisance or something that recently started?

LogMateAMS Architecture



Frequency

A frequency analysis performs basic alarm record counts. Results are used to determine the most significant source of alarm activity, based on the applied criteria. Typical findings include the most active single alarm, the most active shift or hour, or even the most active instrument.

Duration

A duration analysis calculates the time that passes between each alarm activation, acknowledgement, and return to normal. Results are used to investigate operator behavior and alarm duration. Typical findings include alarms that operators are slow to acknowledge or alarms that remain active for an unusually long time.

Alarm Activity Analysis Types (cont.)

Chattering

A chattering analysis highlights instruments that toggle between normal and abnormal many times in a very short period. Results typically indicate a failing or miscalibrated instrument or an alarm trip point that is too close to normal operating limits.

Related

A related analysis finds recurring sequences in alarm activity. Results are used to evaluate alarm redundancy or duplication. Typical findings include two or more alarms reacting to the same condition or a chain of alarms that can be traced to the same root.

Custom Analysis

SQL Server Reporting Services®

LogMate is an open architecture product that allows integration of other reporting tools. SQL Server Reporting Services (SSRS) is a report writing environment integrated into SQL Server®. SSRS allows any number of custom alarm analysis reports to be written and integrated into the LogMate interface.

TIPS gladly participates in coauthoring of custom reports in the event that standard LogMate analysis reports do not cover every need. With Reporting Services, report designs are virtually unlimited, yet the thin-client architecture remains intact.

Compatibility

LogMateAMS is compatible with a wide range of control systems, HMIs, PLCs, and safety systems. It is a true thin-client application. A standard Internet Explorer® browser provides access to every LogMateAMS client tool.

Licensing

LogMateAMS is licensed per "data node" or connected source of event data (DCS console, HMI server, event database). Client access is unlimited, except in cases where economy is critical.

Contact Us Today!

We are happy to further discuss the benefits of LogMateAMS or to design a solution for your site or organization. Contact us at:

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You can learn more about LogMateAMS on the TIPS website: www.tipsweb.com