Wonderware Alarm Adviser

Providing the Right Advice to Improve Operator Efficiency

Wonderware Alarm Adviser is scalable, web-based alarm analysis software that helps you discover nuisance alarms in the process system through interactive visual analysis. It provides a single means of identifying frequent, standing, fleeting and consequential alarms, and enabling companies to monitor key performance indicators of their existing alarm system.

Greater insight into alarm data

Improved plant performance and reliability

Wonderware **Alarm Adviser**

Improved operator awareness

Reduced risks of downtime

Wonderware ®

by **Schneider** Electric

Wonderware Alarm Adviser Features

PRODUCT AT A GLANCE

Wonderware Alarm Advisor is an interactive alarm analysis tool that can help you discover and rationalize nuisance alarms in your SCADA system through benchmarking and analysis. It provides a holistic view of your plant operations and can help analyze plant upsets and optimize system performance.

Alarm Adviser delivers:

- Interactive visual analysis of your alarm history
- Tools to identify and rationalize nuisance alarms
- Powerful functionality
- Means to target best practice industry standards using KPI's and dashboards

With a dashboard for instant diagnosis of alarms, causes and consequences, Alarm Adviser can help you identify conditions which may impact plant safety and improve operator effectiveness while reducing system management costs.
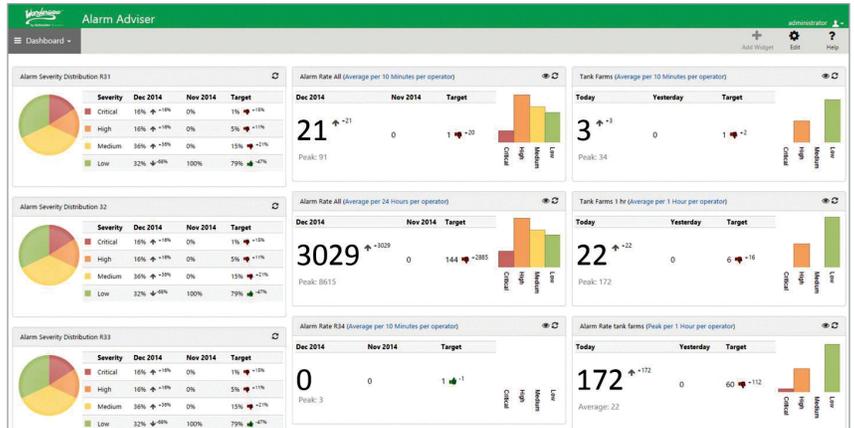
> Customizable dashboard provides a common view of system status

Alarm Adviser can help you realize the following benefits:

- Greater insight into alarm data
- Improved operator awareness
- Reduced risks of downtime
- Improved plant performance and reliability

> Supports HTML5 technology; compatibility with tablets enables anytime, anywhere access to alarm data

Wonderware Alarm Adviser
Features (continued)

Features and Capabilities

- Highly interactive graphical user interface makes alarm analysis easy for engineers

- Customizable dashboard makes it possible to benchmark and maintain alarm system performance in line with standard alarm guidelines or local facility goals

- User configurable widgets can be added to the dashboard, such as:

  - Alarm Severity Distribution: Displays the distribution of alarm severity (e.g. critical, high, medium, low) in a specified period

  - Alarm Rate: Shows the peak or average alarm rate over a period of time for the selected interval per operator

- Allows filtering alarms for a given time period (by severity, time of day, day of week, message, plant area, alarm category)

- Interactive timeline bar that allows users to zoom in on a specific time range

- Interactive visual analysis of alarm history facilitates detailed analysis of a dataset, which can be exported to CSV format

- Top 10 views of the most frequent, fleeting (short duration) and standing (long duration) alarms show which alarms should be targeted first

- Alarm correlation capability provides information for engineers to implement state-based suppression (a new feature in WW System Platform), improving the ability of an operator to discover the root cause of an issue

- User Favorite option allows filters and time periods to be saved and shared with other users for collaboration or to recall a pre-defined analysis period

- Supports HTML5 technology; compatibility with tablets enables anytime, anywhere access to alarm data
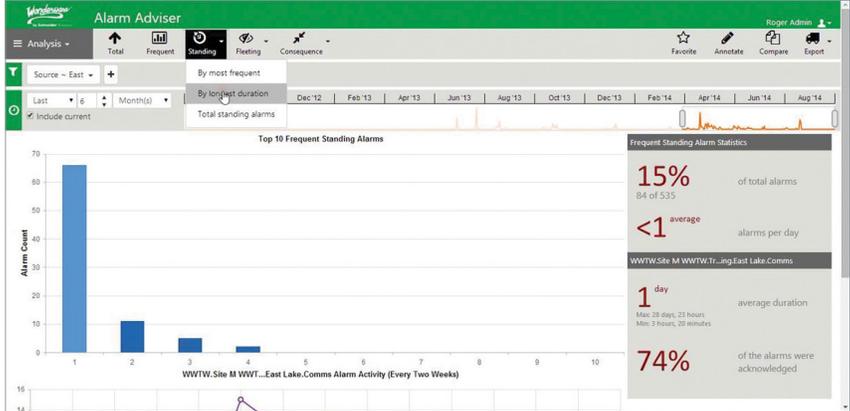
> Top 10 Frequent Standing Alarms: Alarms that are ON for a long period of time
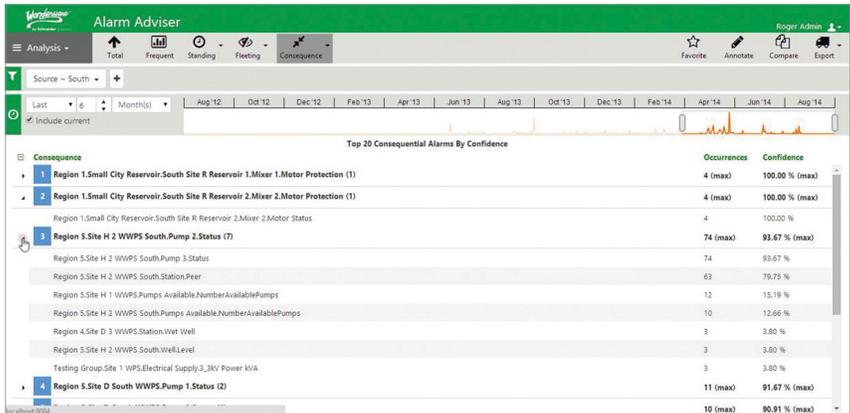
> Consequential Alarms by Confidence: Alarms likely to trigger other alarms within the selected time period

Wonderware Alarm Adviser
Features (continued)

ALARM MANAGEMENT CHALLENGES

Over the past few decades, advances in software technology and control devices have led to an exponential increase in the number of alarms in many industrial manufacturing operations. For many, better alarm management has become a key focus for realizing improvement in many areas of the facility. For example, EEMUA 191 and ISA 18.2 alarm management standards recommend the practical limit of handling alarms per operator as the following: 1 to 2 alarms every 10 minute and an average of 150 to 300 alarms per day. However, automation systems installed within a plant generate thousands of alarms per day per operator, many of which are not serious and do not qualify for operator response. Given the large number of alarms, it is quite a challenging job for an operator to quickly distinguish the most relevant alarms from the routine process alarms and address any problems that might affect plant safety and operations.

Alarm overload can distract the operator and increase the possibility of important alarms and information being ignored or missed. Alarm overload sometimes results in operators ignoring or just acknowledging alarms instead of taking relevant action. This could turn a simple process upset into a more serious incident, which could jeopardize the equipment operation and safety of personnel.

Wonderware Alarm Adviser – Transforming Alarm Data into Actionable Insights

Wonderware Alarm Adviser enables engineers to identify trends within historic data, assess alarm system performance and discover the root cause of abnormal situations in the plant. It gives engineers a complete overview and allows them to monitor the health of the plant on a regular basis.

Benefits for Engineers:
- Enables maintenance or process engineers to analyze plant processes, identify problems and optimize alarm performance
- Facilitates the calibration of alarms to reduce the overall quantity presented to operators
- Helps discover correlation between alarms and identify alarms that are likely to trigger other alarms within a selected time period
- Allows engineers to benchmark and analyze alarms against industry standards

Benefits for Operations:
- Helps improve the quality of alarms being presented to operator control stations
- Empowers operators with the right information at the right time to help reduce downtime
- Saves time and effort required to diagnose plant upsets or incidents
- Helps improve operator awareness and response time

Benefits across the Organization:
- Minimizes the risk of unscheduled downtime
- Helps increase plant productivity and reliability
- Follows best practices and industry standards for effective alarm management
- Provides an almost immediate payoff as it provides the ability to start analyzing alarms and improve your plant performance upon installation

Wonderware Alarm Adviser
Features (continued)

Architecture

Wonderware Alarm Adviser has a webserver-based backend than can be accessed from any HTML5-compliant Web browser client. It runs with Microsoft SQL (Express or Standard provided on System Platform DVD) and allows analysis of 10GB of alarm data (or more depending on SQL version). Alarm Adviser supports one or more SCADA collectors to import alarm data from the Wonderware InTouch alarm database (WWALMDB) and the Wonderware System Platform alarm database (A2ALMDB).
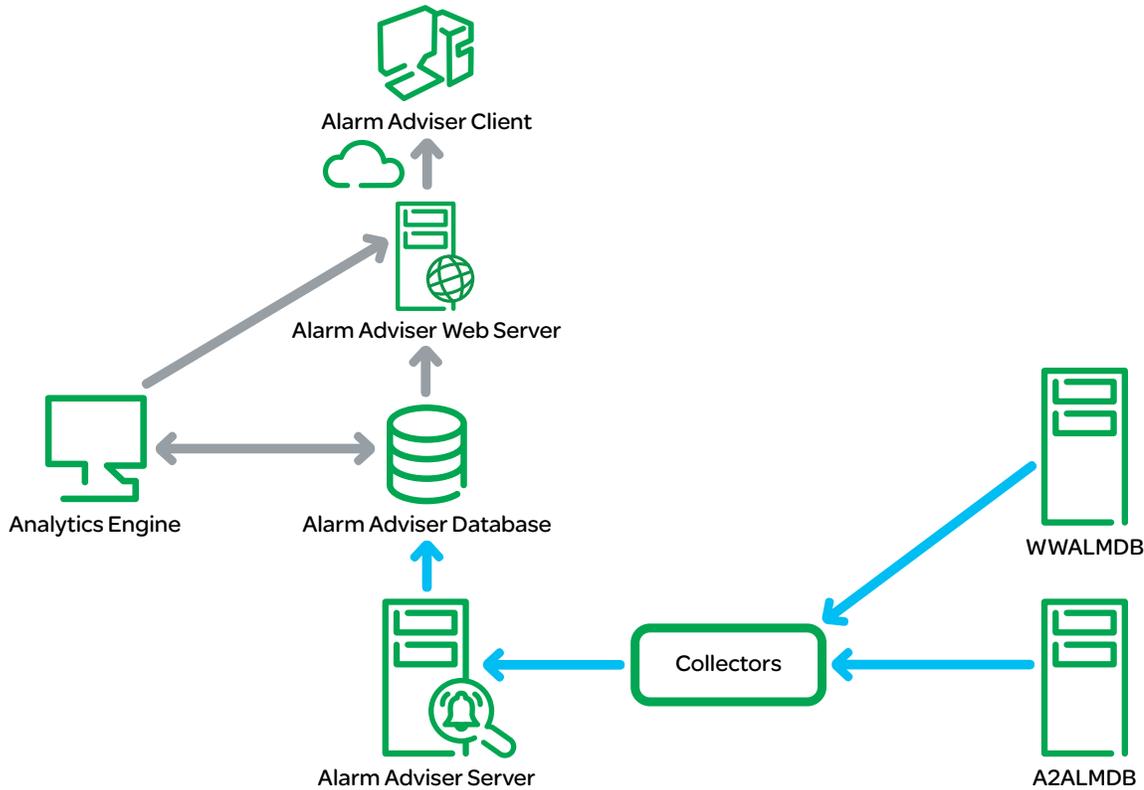
> Schematic representation of Alarm Adviser
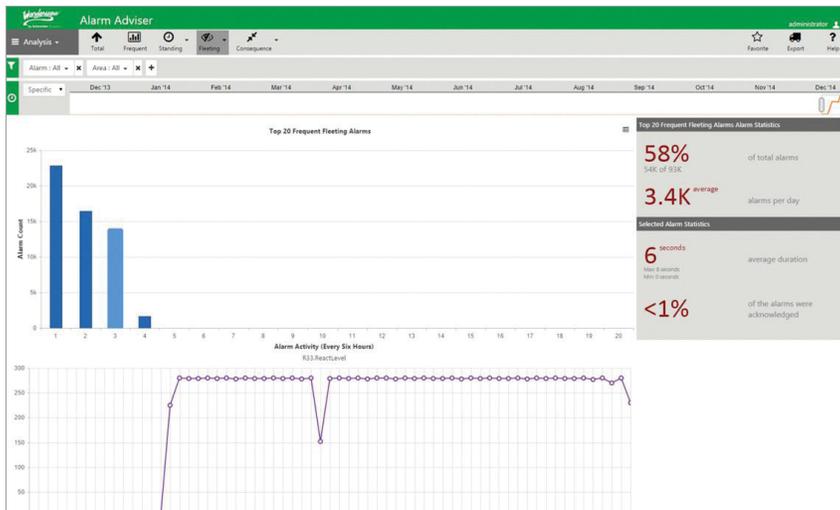
> Top 20 Fleeting alarms: A chart of alarms that go ON and OFF in a short period of time

Wonderware Alarm Adviser
Features (continued)
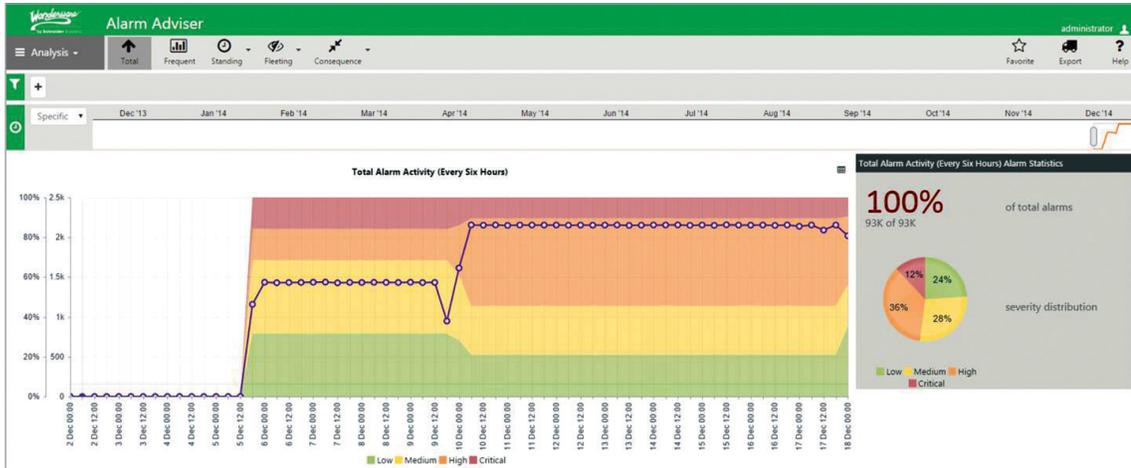
> Total alarm activity and severity distribution: Analysis view for investigating problem areas of alarming

System Requirements
• Microsoft® Windows® 7 (32-bit or 64-bit)

• Microsoft Windows 8/8.1 (32-bit or 64-bit)

• Microsoft Windows Server 2012, 2012 SP1

Compatibility
• Wonderware System Platform 2012 v3.5 or higher (A2ALMDB or WWALMDB)

• Wonderware InTouch 2012 v10.5 or higher (WWALMDB)

• Microsoft SQL Server 2012 SP1 Express (32-bit or 64-bit)

• Microsoft SQL Server 2012 SP1 Standard (32-bit or 64-bit)

• Vijeo Citect v7.20 or higher (to be released separately)

• ClearSCADA (to be released separately)

For More Information
For more information on how Wonderware Alarm Adviser can help you, visit our website at
software.schneider-electric.com.

You can also view our blogs:

• blog.wonderware.com

• Situation-awareness.com (subscribe to get weekly Wonderware HMI newsletter)

Or, contact your local Wonderware representative.