AlarmWatch

Designed for iFIX from GE Digital

What is AlarmWatch?

AlarmWatch is an alarm system KPI dashboard, with automated ISA 18.2 benchmarking and reporting.

AlarmWatch provides Engineering Managers visibility of their SCADA alarm system performance, an up-to-date list of the top offenders or 'Bad Actors' and simple navigation to identify systemic problem areas. Enabling users to benchmark alarm system performance, reduce operator alarm load and optimize the alarm system for effective control of operations.

AlarmWatch automatically pulls GE iFIX or Historian A&E Archiver alarm and event data, analyzing the alarm data against ISA 18.2 recommended alarm metrics (industry best practise standard) and displays them on the dynamic AlarmWatch Dashboard.

This ready-to-go solution allows managers to:

- View and benchmark alarm system performance in seconds.
- Identify system problem areas e.g. 'Bad Actors' or nuisance alarms such as Alarm Floods and Chattering Alarms.
- Drill-down for detailed investigation.
- Take action in a targeted and cost-effective way.
- Track alarm system improvements.
- Monitor and receive ongoing insights for systems and process optimization, to achieve alarm management goals.

This modern, simple yet sophisticated analytics tool enables managers to readily take action such as identify and fix maintenance problems, scope and prioritize activities for alarm rationalization and minimize alarm noise to reduce operator

Do you need this?

Does your business use alarms to control important processes? When was your alarm system last audited? Are your operators facing too many alarms (alarm flood) or ignoring alarms? Do they operate in an environment which allows focus and good decision-making? Are you compliant with your insurance obligations and industry standards?

AlarmWatch is a cost-effective solution to enhance alarm system performance and improve a plant's overall safety, productivity and profitability.



Software Requirements

iFIX
Data sources:

- iFIX Productivity Tools v5.9 or later (or, iPower 5.9 or later)
- Historian Alarm & Events (+ CAL for Historian v8.1 or earlier).

Benefits

Performance	Improve SCADA alarm system and operator performance with an effective alarm system.
Safety	Reduce operator overload and enhance plant safety with improved situational awareness.
Compliance	Reduce business risk and improve compliance with industry benchmarking (ISA 18.2).
Savings	Reduce maintenance and engineering costs by identifying issues quickly and having an informed and targeted response.
Auditing	Access to secure alarm and events records for auditing purposes.
Productivity	Increase plant-wide productivity with alarm system performance visibility and reducing noise.
Excellence	Contribute to continuous improvement initiatives and operational excellence with ongoing monitoring and KPI reporting.
Knowledge	Improve business insights and decision-making with reliable reporting.
Empower staff	Enable engineers and operators to be more responsive, save time from traditional reporting tasks and reduce incidents.
Immediate ROI	Identify quick wins and priorities for alarm rationalization projects. ¹
Low cost - high impact approach	AlarmWatch is a relatively low-cost solution to improve overall alarm management, with a quick and easy install and minimal (if any) training or implementation costs required.
Ongoing value	Low maintenance product with a strong technology roadmap and ISA 18.2 updates.

 Image: Second Second

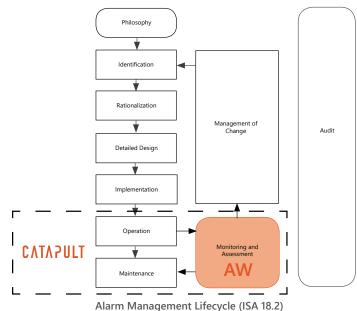
AlarmWatch KPI Dashboard

1. Recommended to commence with 30 days of alarm and event records.

Alarm Management & ANSI/ISA 18.2

The progression of automation processes and changing technologies has led to alarm overload becoming a widespread issue. The benefits of an effective alarm system and management proceedures are often underestimated. A well-designed alarm system which is monitored and optimized over time will improve a plant's safety, machine and alarm system performance, and increase a plant's productivity – all affecting your bottom line.

ISA 18.2 is an alarm management safety standard developed by and for several automation industries including; chemical, pipeline, petrochemical, pharmaceutical, mining and metals, power, and manufacturing industries. It focuses on operator safety for SCADA systems and presents the 'Alarm Management Lifecycle' as a guideline for the requirements to implement and effectively manage an alarm system. ISA 18.2 recommends 'Monitoring and Assessment' as one of the best places to start to understand and improve your alarm management practices. Alarm Monitoring and Assessment tools can highlight problem areas in order to reduce 'noise' and improve alarm system performance, provide insights for maintenance and alarm rationalization and support an operator's ability to respond effectively, reducing incidents.²



AlarmWatch Features

Functionality	Description
Ready-to-go solution	No report design, coding or hands-on training required.
Quick & easy install	No project managers or engineers required.
iFIX connectivity	Readily connected to iFIX alarm and event records via iFIX Productivity Tools.
Up-to-date alarm data display	Automated collection and aggregation of alarm information so you can have up-to-date performance information on a daily basis.
Interactive Alarm KPI Dashboard	At-a-glance alarm system health, including ISA18.2 section 16 benchmarking (default) or custom thresholds. Includes risk assessment colours to help identify problem areas i.e green = acceptable, orange = manageable and red = overloaded.
Easy to use, simple UI	An intuitive product with a clear web user-interface, minimal to no training required.
Quality data & reporting	All data inputs are pre-validated and processed to ensure data integrity i.e. completeness, uniqueness, valid dates/times. Data load-time is quick due to pre-calculated data.
Drill-down function	Interactive drill-down function allows users to easily identify a metric's root cause, right down to individual alarm records.
Displays 'Bad Actors'	Displays the top 10 most frequent alarms or 'Bad Actors'. This enables management to focus on high impact issues, saving money and time of valuable engineering resources. Bad Actors are often responsible for up to 80% of the total alarm system load. ³
Displays Nuisance Alarms	Quickly identify Chattering Alarms, Fleeting Alarms and Alarm Flood information.
Flexible reporting	Custom date ranges and data set comparisons enable users to easily track improvements.
Leverage historic data	Data back-fill enables users to load historic data and fill-in gaps during server downtime.
Tamper-proof software	Block-chain technology is used to identify and prevent unauthorized changes to alarm and event data stored in AlarmWatch. Therefore data tampering cannot go unnoticed.
User authentication	User authentication and authorization - AlarmWatch supports LDAP/Active Directory and built- in authentication.

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Contact Information

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ANSI/ISA-18.2-2009 "Management of Alarm Systems for the Process Industries"
Van Camp, Kim (Emerson Process Management) and Stauffer, Todd (PE, Exida): "Tips for Starting an Alarm Management Program" published in Applied Automation; April 2013.