

Dynamic Alarming Rationalization & Design

Real-time adjustment of alarm settings based on operational conditions to ensure relevant, actionable alerts and enhance operator response.



The Puffer Dynamic Alarm Rationalization (State-Based) & Design Solution

Dynamic Alarm Management is a process that adjusts alarm settings in real-time based on changing operating conditions to ensure that alarms remain relevant and actionable, improving operator focus and response during different operational states. It enhances alarm system performance by aligning alarm priorities with current process needs. AgileOps™ Dynamic or State-Based algorithms detect changes in the plant's operating state (e.g., startup, shutdown, varying rates, different feedstocks) and dynamically adjust alarm settings to match the appropriate conditions for each state. This approach, especially for preventing inadvertent equipment shutdowns, has proven highly effective in managing alarm floods.

- Dynamic Alarm Management (State-Based) alarming is a technique employed to help ensure that alarms are annunciated **only when they are actually needed**.
- Dynamics of the process and potential process operating states are **evaluated and incorporated** into the alarm management design.
- Dynamic rationalization essentially answers the “when?” question – **“When is this alarm really needed?”**

KEY COMPONENTS

- **Determine the process cases (states).**
- **Define process measurements and logic that detects state changes.**
- **Evaluate alarm configuration by case.**
- **Integrate state detection logic into AgileOps™ software.**
- **Implement alternate alarm settings into the DCS via OPC-DA or OPC-UA synchronization.**
- **Safely monitor communication health status via Watchdog timer application.**
- **Significant reduction of Alarm Flooding due to non-steady-state operational states or unexpected process upsets or shutdowns.**

Alarm Management Packages

CORE

- Alarm Management Philosophy
- Baseline Benchmarking
- Bad Actor Alarm Resolution

ESSENTIAL

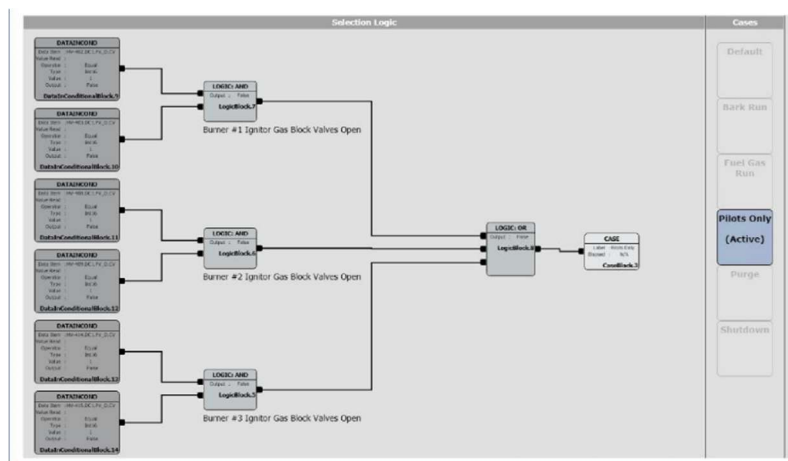
All Core features, plus:

- DeltaV AgileOps™ Software
- Steady State Documentation & Rationalization
- Audit and Enforce / Synchronization

BEST PRACTICE

All Advanced features, plus:

- Dynamic Alarming Rationalization, Design & Implementation
- Alarm Shelving



Call Puffer-Sweiven at 281-240-2000 for more information today!

PUFFER-SWEIVEN CORPORATE OFFICE AND DISTRIBUTION CENTER

4230 GREENBRIAR DR, STAFFORD, TEXAS 77477 | WWW.PUFFER.COM | INFO@PUFFER.COM

Systematically ASSESS, DESIGN, IMPLEMENT, MONITOR, AND OPTIMIZE Process Control Alarm Systems to Enhance Operator Effectiveness in Identifying and Responding to Critical Abnormal Situations, Ensuring Improved Safety and Operational Efficiency.



Alarm Management Solutions

The Puffer program is a structured approach designed to optimize alarm systems in process control environments by reducing alarm overload, eliminating nuisance alarms, and ensuring that only critical alarms are presented to operators. Our program involves comprehensive static and dynamic alarm rationalization, prioritization, and continuous monitoring to enhance operator response and decision-making. By improving the effectiveness of alarm systems, the program aims to increase safety, compliance, and operational efficiency.

Alarm Management Packages	CORE	ESSENTIAL	BEST PRACTICE
Alarm Management Philosophy	■	■	■
Baseline Benchmarking	■	■	■
Bad Actor Alarm Resolution	■	■	■
Documentation and Rationalization – Steady State		■	■
Audit and Enforce Synchronization		■	■
DeltaV AgileOps™ Software Implementation		■	■
Dynamic Alarming Rationalization, Design & Implementation			■
Alarm Shelving			■



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