CASE STUDY

Asia-Pacific oil and gas company drives operational excellence

Octave Tempo Control System Effectiveness drives significant gains in safety, reliability and cost effectiveness with real-time remote monitoring of operations

Key facts:

Industry: Oil and gas

Region: Asia-Pacific

Octave products used: Tempo Control System Effectiveness *(PAS PlantState Integrity)*

This Asia-Pacific-based oil and gas company operates in more than 20 African countries, ASEAN, Asia, Australia, the Middle East, North America and South America. The company has business imperatives for operational excellence and health, safety and environment (HSE) performance.

The challenge

With oil prices holding well below historical $100/barrel levels and regulators and society paying greater attention to activity and HSE performance, the company determined to reduce costs, deliver projects with discipline and prioritize safety and asset integrity. This caused the company to embark upon a new and ambitious operational excellence, remote monitoring and digitalization initiative to maximize safety, reliability and cost efficiency. The objective was simple but profound: standardize efficient and effective global processes across its upstream business.

Addressing this challenge required new ways of collaborating across dozens of geographically dispersed sites with very different operating practices.

It also required the creation of a new Center of Excellence (CoE) at the company's headquarters, which was chartered with centralized monitoring of site safety, reliability and performance metrics and driving the adoption of best practices and learning across the organization. The CoE was also assigned to identify any necessary investments required to realize the objective of the high-priority initiative.

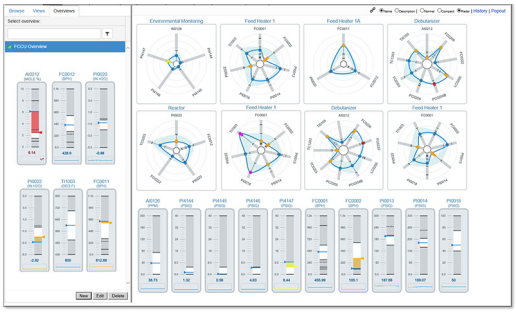
Key benefits:

- 90% reduction in alarm rates, significant operator efficiency gains, 93% reduction in SIF bypasses, standardized bypass governance
- Higher performing control loops through monitoring, analysis and diagnosis of control valves in the field
- Visualization of all critical operating parameters and safe operating limits with reporting on violations
- Real-time monitoring of performance at each site and headquarters Center of Excellence (CoE)

The solution

Beyond the creation of the CoE to provide and drive enterprise wide collaboration and transparency of safety, reliability and performance metrics, the CoE team quickly recognized the need for new technologies to support the initiative. It engaged seven vendors in a competitive evaluation with the key requirement to establish a single, integrated software solution that could enable remote monitoring with comprehensive dashboards for alarm management, safety systems, control loop performance and boundary conditions. The company also sought a solution that would help it implement the ISA 18.2 (IEC 62682) standard for effective and sustainable alarm management.

Tempo Control System Effectiveness was selected because it was the only solution supporting alarm management, independent protection layer (IPL) monitoring, control loop performance optimization and boundary management as an integrated suite of applications. In the first year, the solution was deployed to several sites in the Asia region, and then the project deployed to sites for the rest of the global upstream business.



Initially, and perhaps not surprisingly, there was concern from individual sites about exposing operations to staff outside of the local plant. In one instance, a plant manager was surprised when the CoE team informed him of a large number of safety bypasses that were activated at his facility. However, he worked with the CoE team to reduce the number of bypasses and safety risk at the plant. By taking a structured and collaborative approach with its operational excellence and digitalization initiative, the company is now better able to meet its broader corporate objectives for business profitability and sustainability.

The company is now extending its engagement with Octave to deploy additional capabilities to boost protection against industrial cybersecurity threats to further improve operating integrity and reduce performance risk.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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