eBook

Smart digital reality:

How to fuel tomorrow's oil and gas industry

Introduction

Today's oil and gas industry is in a period of steady and pressured growth. Fluctuating global demand, portfolio diversification and increasing investment in renewables are reshaping the landscape, along side rising environmental, social and corporate governance (ESG) expectations.

Renewables may offer clear advantages, yet they don't match the versatility, reliability and dependability of conventional energy. Oil and gas markets remain vital in powering daily life by providing heat, electricity, mobility and other essential services.

The role of the industry isn't fading. *It's evolving.*

Oil and gas impact snapshot

Power generation

Fossil fuels serve as the backbone of the power generation industry, delivering heat and electricity to households, businesses and industrial operations. In 2022, fossil fuel sources (coal, natural gas, petroleum and other gases) accounted for 60% (4.24 trillion kWh) of total electricity generated across the United States.

Transportation

Conversations around electric vehicles and fleet electrification are accelerating. But the grid isn't fully equipped to keep up with this transitional shift. Much of today's power still relies on fossil fuels. Therefore, automotive and large-scale transportation operators continue to rely on gas and diesel to keep people moving and supply chains running.

Everyday basics

Refineries and processing facilities play a crucial role in manufacturing the chemical components found in everyday items, including clothing, laundry detergent, toothpaste and electronics.

Industrial processes

Oil and gas support critical applications across industries, including lubricants that keep equipment running efficiently and operations moving without disruption.

Industry challenges

Across the oil and gas sector, familiar challenges continue to slow progress and introduce risk:

- Little visibility into project data, causing delays and rework
- Fragmented documentation and disconnected systems
- Lack of access for field personnel to updated, accurate procedures, use-authorization information and safety protocols
- Siloed data sources that often contain inaccuracies, conflicting information
- No or low visibility into the supply chain, supplier lead times causing delays and duplicate costs
- Incomplete health and reliability data of production assets
- Siloed internal processes regarding regulatory and financial requirements
- Overabundance of nuisance alarms and delayed loop-management information
- Ineffective asset utilization and outdated, paper-based maintenance documentation
- Poor integration of data and systems, restricting operations management
- Manual and repetitive field tasks due to a lack of digitalization and mobility
- Miscommunication, minimal transparency between shift handovers

Left unchecked, these issues compound, leading to costly rework, project overruns, missed deadlines, operational disruptions and increased safety risks.

Yet, change is underway. Engineering, procurement and construction (EPC) firms and owner operators are embracing digital transformation to address these challenges, reduce waste, close gaps and strengthen performance.

Digital transformation: The next big oil and gas boom

Automation and artificial intelligence

Leading companies implement AI-powered and autonomous solutions to analyze large quantities of data from equipment and instruments to identify patterns, forecast potential issues and optimize equipment, instruments and operating systems.

Digital twins

Digital twins provide operators with digital representations of systems and processes for testing, integration, simulation and monitoring, empowering operators to make data-driven decisions and enhance efficiency.

Predictive maintenance and IoT

The adoption of maintenance and sensor software allows real-time monitoring and analysis of operational sites. From individual equipment components to entire sites, these technologies detect potential incidents and ensure operational efficiency.

Remote monitoring

Remote monitoring software centralizes equipment monitoring, minimizing the need for onsite inspections and reducing downtime.

Data alone isn't enough.
It's what you do with it that drives results.

Octave's smart digital reality: Empowering a future-forward industry

The Smart Digital Reality delivers a unified, role-based, real-time view across physical and digital environments infused with intelligence to automate processes and analytics. Powered by the digital backbone, it connects data across the entire asset lifecycle to bring clarity, speed and control to complex operations.

Octave's Smart Digital Reality approach for the oil and gas industry facilitates planning, design, execution, operations, maintenance and security via an integrated, aggregated and actionable data ecosystem across the asset lifecycle. This allows for greater transparency, timely decision making, increased collaboration, enhanced risk mitigation and drives better outcomes that contribute to improved safety, quality, productivity, sustainability and efficiency.

With the Smart Digital Reality, expedite your path to operational excellence with a real-time view of both physical and digital environments across the project and asset portfolio, equipping your team with the intelligence needed to optimize operations using:

Smart workflows

Customized sensor software seamlessly integrates into existing workflows for enhanced speed and agility.

Two worlds, one reality

A digital twin merges physical and digital realities to offer a comprehensive 360-degree perspective of the dynamic oil and gas landscape.

Beyond the digital twin

Enable autonomy within your digital twin and operations to minimize or even eliminate the need for human intervention.

Design

- Schematics & 3D
- Engineering analysis
- Engineering info management
- Geospatial

Build

- Construction
- Project performance
- Supply chain management
- Completions

Operate

- Enterprise asset management
- Asset performance
- Quality assurance
- Operations optimization

Protect

- Public safety
- Inter-agency collaboration
- Physical security
- Industrial cybersecurity

Digital backbone

The digital backbone is Octave's common integration platform that seamlessly moves and transforms data across systems, connecting and enabling workflows end-to-end across the Design, Build, Operate and Protect pillars.

Digital solutions for oil and gas

No matter your starting point, oil and gas businesses are building their Smart Digital Reality with the right foundation, then scaling for a complete ecosystem. Organizations layer solutions across projects and operations, creating a digital backbone that keeps data flowing and decisions aligned.

From project managers, engineers, operations leaders, construction supervisors, field personnel, IT administrators and supply chain managers, check out the key solutions that oil and gas customers use to optimize operations:

Octave Sequence Enterprise *(formerly EcoSys)*

Optimizes project portfolios by identifying the right timing, capacity and resources while controlling costs and improving outcomes.

Octave Forte 3DWorx *(formerly CADWorx Plant Professional)*

A robust DWG file-based range of tools that provides plant design teams with the tools needed to quickly create scalable 3D plant models while maintaining data integrity.

Octave Forte 3D *(formerly Intergraph Smart 3D)*

Enables the design of industrial facilities of any size or complexity from mega projects to sustaining engineering efforts with its data-first approach and as-built capability.

Octave Aspect Pipe Stress *(formerly CAESAR II)*

Provides engineers with tools needed to reduce errors and accurately analyze, evaluate, and report on piping systems with confidence.

Digital solutions for oil and gas

Octave Aspect Pressure Vessel

(formerly PV Elite)

Streamlines vessel and heat exchanger design, analysis and evaluation. The solution considers the whole vessel, addressing the wall thickness rules and stress analysis requirements.

Octave Tempo Operating Procedures

(formerly AcceleratorKMS)

Strengthens human performance by delivering accurate, accessible procedures within the flow of work, reducing risk and improving operational consistency.

Octave Loop Core

(formerly Intergraph Smart Materials)

Connects supply chain partners through an integrated software solution for end-to-end materials management.

Octave InConcert

(formerly HxGN SDx2)

Establishes a single source of truth across the asset lifecycle, connecting engineering and operational data to improve visibility, alignment and decision making.

Octave OnSite Completions

(formerly Intergraph Smart Completions)

OnSite Completions creates a foundation of information with traceability and accountability for custody, control, and work processes providing seamless transitions to operations and maintenance. It helps manage all your projects, large or small, by enabling any organization to effectively plan, prepare, and execute a project.

Octave Tempo Operations Management

(formerly j5 Operations Management Facilities)

Streamlines and standardizes key industrial processes, including shift operations management, maintenance and process work, streamlining workflows and ensuring effective process control.

Digital solutions for oil and gas

Octave Attune EAM *(formerly HxGN EAM)*

Digitally manage physical assets from acquisition to retirement. Schedule labor efficiently, manage work orders with automation and track costs across the asset lifecycle. Streamline procurement, optimize inventory levels and ensure the right resources are available when needed—minimizing working capital while maintaining reliability.

Octave Attune APM *(formerly HxGN APM)*

Improve asset reliability by using real-time monitoring, advanced analytics, and AI/ML to detect equipment failures early. Trigger maintenance based on actual condition rather than fixed schedules. Identify critical assets, assess failure risks, benchmark performance, and create targeted protective strategies linked to work management systems to reduce downtime and avoid unnecessary preventive tasks.

Octave Tempo Control System Effectiveness *(formerly PAS PlantState Integrity)*

Ensures safe, reliable and compliant operations by unifying alarm management, boundary management and control loop performance within a single environment.

Octave Cyber Integrity *(formerly PAS Cyber Integrity)*

Protects critical infrastructure by continuously monitoring OT and ICS environments, helping teams detect, respond to and recover from cyber threats with confidence.

Our oil and gas customer successes

Empowering oil and gas projects

The oil and gas EPC market is projected to reach $550.32 billion globally by 2028. Across every phase (from planning, design and construction to fabrication and installation), EPCs face increasing pressure to deliver faster, reduce risk and improve quality. The challenge proves clear: optimize performance while minimizing rework, waste and cost.

See how Octave's digital solutions help teams achieve higher levels of transparency, productivity and efficiency at scale.

Customer success spotlight

Empowering better project management for a faster path to first oil

*"Having one true data set allows us to be more predictable.
We can see what a trend is or not, leading to better proposals and better execution."*

A major employee-owned EPC firm, serving refineries, chemical plants and utility facilities, built its reputation on strong processes, project controls and project execution. Its homegrown tools couldn't scale, and resource planning became a growing constraint.

Before building a digital backbone

Limited visibility across siloed project management tools made resource planning difficult, forecasting inaccurate and enterprise-level reporting nearly impossible. The customer recognized the need to replace legacy systems, mitigate knowledge from a retiring workforce and implement a real-time solution to optimize and maximize resources.

After building a digital backbone

By implementing Sequence Enterprise, the organization established a connected environment for forecasting, resource planning and project execution. Integrated with its ERP systems and Primavera P6, Sequence Enterprise now serves as a central hub for project data, supporting work packaging, lessons learned and historical insight.

The result? The team has improved predictability, stronger resource alignment and a strong foundation for continued growth.

Success Snapshot	
Customer	EPC with more than 270 employees and a growing project portfolio
Challenges	• Rigid, in-house project management tools • Insufficient resource and knowledge management solution
Solution	Sequence Enterprise
Results	• Improved flexibility with scalable project management solution • Optimized resource planning, forecasting and work packaging • Streamlined interoperability for data sharing and reporting

Customer success spotlight

Delivering design and construction for greater operations performance, safety and sustainability

"Octave's team was instrumental in setting up our environment, and they provided us with valuable assistance in upgrading our 3D software to the latest version. Additionally, their team successfully migrated our 3D model data, which was a significant undertaking, but they handled it with ease."

An EPC embarked on an engineering project to design and build two gas compressor stations that needed to meet technical, safety and environmental requirements.

Before building a digital backbone

The project team set to reuse the customer's existing plant 3D model but faced challenges around infrastructure setup and compatibility with modern tools. After conducting a detailed analysis, the customer implemented Octave's Forte 3D (formerly Intergraph Smart 3D) and Facets Instrumentation (formerly Intergraph Smart Instrumentation).

After building a digital backbone

With Forte 3D and Facets Instrumentation, the organization established a scalable, SaaS-based design environment.

In three weeks, teams managed 3D models, plant deliverables (such as bills of materials, drawings and reports) and instrument documentation, including data sheets and drawings, for improved collaboration, reducing errors and accelerating engineering workflows.

Using Octave's digital solutions and partnership, the customer significantly improved engineering and design operations and boosted its competitiveness in the marketplace.

Success Snapshot	
Customer	• 50+ employees • Introduced 3D intelligent computer-aided design in Italy
Challenges	• Needed to establish the infrastructure which required using their customer's existing plant 3D model • Limited compatibility with current tools and data
Solution	• Forte 3D • Facets Instrumentation
Results	• Streamlined collaboration • Heightened design and engineering efficiency • Minimized errors • Unified interface

Customer success spotlight

Maximizing cost savings while minimizing complexity and challenges

"Aspect Pipe Stress (formerly CAESAR II) helped us confidently develop our project deliverables and Forte Isogen (formerly Isogen) helped us quickly produce accurate isometric drawings."

A leading multi-disciplinary management and engineering consulting firm was selected to provide engineering for a carbon black (a base product used in tires) plant in India.

Before building a digital backbone

For this project, the plant operated at an annual capacity of 84,000 tons, with 6,000 meters of piping and 107 pieces of equipment, including 50 bellows, high-pressure, high-temperature steam lines, pipe diameters ranging from 30 to 54 inches and minimal bends and complex turbine piping added challenges. These factors created a system that demanded precision at every step.

After building a digital backbone

Using Aspect Pipe Stress, the team successfully analyzed high temperature systems and performed a stress analysis of all critical lines, identifying and eliminating unnecessary components.

The result? The team optimized design, reduced complexity and millions in cost savings.

Success Snapshot	
Customer	Management and engineering consulting firm in India with clients in chemical, petrochemical and onshore oil and gas
Challenges	Complex, high-pressure, high-temperature environment
Solution	Aspect Pipe Stress
Results	• Delivered successful results in a challenging project • Saved client millions of rupees • Provided accurate analysis that resolved technical dispute

Customer success spotlight

Effective materials management solution helps customer increase competitive advantage and secure mega project

"The centralized, real-time reporting allowed us to share complete and consistent data across all sub-contractors and sites. Material usage forecasting also helped to avoid delays in the schedule by pinpointing exactly where materials were required. The sophisticated reporting features also allowed us to minimize wastage due to over-issuing. Loop Core enabled us to support the client in managing their material with the accuracy and thoroughness they expect."

A leading construction company was awarded two major multimillion-dollar contracts for gas and water infrastructure as part of the first phase of the Australia Pacific LNG Gathering Project.

Before building a digital backbone

This project demanded coordination at scale, more than 1,200 kilometer (km) of pipeline, 1,700 km of cabling and well-head equipment across six construction sites, with three sub-contractors involved. Adding to the complexity, the client required the project team to manage all materials – an unfamiliar responsibility for the organization.

After building a digital backbone

After evaluating multiple solutions, the project team selected Loop Core, built for the oil and gas industry. The solution helped drive efficiency during construction and helped the customer secure new work. Following this success, Loop Core was deployed on the Ichthys Project Onshore LNG Facilities and supported project delivery across the Northern Territory.

Success Snapshot	
Customer	Construction company operating across Australia, Asia, New Zealand and Papua New Guinea with 24,000 employees, delivering and supporting more than 200 projects
Challenges	• Massive and complex project • Required project team to manage all materials on behalf of the client
Solution	Loop Core
Results	• Shared materials information between contractors and sites • Reduced delays in project schedule • Minimized waste and over issuing of materials • Forecasted accurately and scheduled more efficiently

Customer success spotlight

Streamlined and simplified for smarter, smoother well handover

"The new process will be used to compile and deliver all 977 well-commissioning dossiers for the Australian LNG upstream phase 1 project in less than 2% of the time it was taking to manually generate the dossiers."

An energy company set out for a more efficient approach to well handover and completion for an upstream project. The business selected Octave's OnSite Completions.

Before building a digital backbone

The team faced a complex, manual process, requiring coordination across field delivery, commissioning and documentation teams. Creating commissioning dossiers was time-consuming and difficult to standardize.

After building a digital backbone

With OnSite Completions, the team implemented an automated system to compile commissioning dossiers to bring structure, speed and consistency to the process.

Each dossier now includes inspection test records, installation checklists, completions certificates and procedures used throughout the commissioning process. An average well-site commissioning dossier may contain more than 180 pages and take up to five hours to put together.

The result? The team experienced faster handovers, reduced rework and improved reporting.

Success Snapshot	
Customer	Australian energy company
Challenges	• Limited well handover and completion process • Difficulty combining innovation with collaboration • Required a best-practice approach to simplify existing methods
Solution	OnSite Completions
Results	• Streamlined process • Improved quality to reduce rework • Boosted better, faster reporting • Gained consistency in online documentation

Our oil and gas customer successes

Upstream

From the Bakken Formation, with a daily output of more than 1,686 barrels of oil, to the Permian Basin, which contributes for 40% of U.S. oil production and the Gulf of Mexico with yields of 641 million barrels of oil, the upstream workforce proves vital to the energy supply.

With every major find, project, contract and planned execution, challenges persist. Success depends on clear, data-driven decisions to deliver the right outcomes on time, on budget and without incident. This means giving stakeholders visibility into data, alarms, schedules, supply chain, assets and resources.

Here's how upstream leaders build a stronger digital backbone and turn data into action and scaling what's possible.

Customer success spotlight

Sharpening alarm management and plant cybersecurity

"We went down from literally tens of thousands of alarms per shift to less than 12. This helped our operators tremendously in improving efficiency and safety, as personnel can now focus on critical work."

A leading oil and gas exploration and production customer set out to streamline upstream operations to strengthen sustainability, reduce costs and improve efficiency. They needed tighter alarm management and a more secure operational environment.

Before building a digital backbone

Operators faced up to 4,000 alarms per hour, beyond manageable levels and a clear risk to safe operations. The organization needed a scalable, interoperable cybersecurity approach; one that was practical to implement and built for long-term resilience.

After building a digital backbone

Through alarm rationalization workshops and best practices, alarms were aligned, workflows streamlined and operations refocused.

The result? The team reduced alarms to an average of three per hour and peaks capped at 20 per hour, boosting measurable gains in safety and performance. With a clear roadmap in place, the company advanced its operational technology (OT) cybersecurity strategy by adding Octave's Cyber Integrity.

The solution supports plantwide monitoring and analysis of control loop performance, alongside the management of safety integrity functions (SIFs) and independent protection layers (IPLs).

The result? The organization experienced stronger performance, tighter control and a more resilient operation.

Success Snapshot	
Customer	• 205 producing oil fields • 64 gas fields • 29 production stations • 8,400+ active wells • 33,000+ km of pipelines and flowlines • 231 operating units in well engineering fleet • 49 rigs and 39 hoists
Challenges	• 4,000 alarm events per hour • Fragmented cybersecurity • Infrastructure
Solution	Tempo Control System Effectiveness, Cyber Integrity
Results	• Improved capacity and capability • Reduced costs • Increased efficiency • Fewer process safety risks • Enhanced cybersecurity

Customer success spotlight

Deepwater operations, increased productivity

"I've finally found the solution I needed to take my business to the next level. There's no other company in my niche doing what we do, the way we do it, and a huge part of that is because of Tempo Operations Management. Our goal is to implement as much of our daily activities as we can into this system. From our inspection records to manufacturing alerts and bulletins, we see this as the ultimate solution for tracking our day-to-day activities."

An oil and gas services company was facing a daily challenge with inadequate and time-consuming word processor documents and spreadsheets for their inspection activities. This not only caused difficulty with transparency, tracking and tracing data, but contributed to decreased coordination, focus and operational productivity.

With the ever-changing regulations in the oil and gas industry, it was important for this customer to boost visibility, consistency and tracking of the human processes alongside the real-time data.

Before building a digital backbone

Mired by siloed word processor documents and spreadsheets, the organization was plagued with inconsistent information and overlapping data. In addition, the visibility of ongoing work inspection status was severely diminished and caused compliance headaches from the lack of traceability and transparency.

After building a digital backbone

With Tempo Operations Management, the customer was able to infuse transparency across their operations which opened the door to greater visibility and improved interaction with inspectors. After implementation, the customer noted remarkable improvements in time-savings for documentation and completion of inspections as well as efficiency in retrieving and searching for quality evidence post-inspection. In addition, by consolidating, integrating and aggregating data and information from all of the word processor documents and spreadsheets into a single, structured enterprise system, the client streamlined operational processes and reduced its reliance on third-party assistance to meet specific industry requirements and changes, leading to improved ISO 9001 compliance.

Success Snapshot	
Customer	American subsea operational support company
Challenges	• Limited productivity • Siloed documents and spreadsheets • Poor visibility into time and data • Disconnected operations
Solution	Tempo Operations Management
Results	• 70% productivity gain in documentation and inspections • Standardized processes for inspector's management and action completion with consistent formatting, structure, workflows and content entry, leading to better ISO 9001 compliance • 95% increase in time saved retrieving and searching for quality evidence post-inspection • Inspectors now load the findings directly in a digital report, which eliminates the need for additional filing of reports and records

Our oil and gas customer successes

Midstream

Storage and transportation play a critical role in midstream operations. As global demand for energy rises, so does the need for the midstream sector's new build and expansion projects, with 1,295 upcoming midstream projects to start operations from 2023 to 2027.

From pipelines to storage tanks and terminals, this segment keeps energy flowing, supporting everything from heating our homes and businesses to producing everyday essential items.

To keep pace, operators need clarity. Connected data across shifts, real-time data accessible to leadership and the field and up-to-date processes and procedures for a safe, productive plant remain critical. Here's how midstream leaders use Octave's digital solutions to mitigate risk and boost performance.

Customer success spotlight

Streamlining communication and shifting into high gear with digitalization

"We selected Tempo Operations Management as our standard tool for resolving our previous operations management challenges, and we are now experiencing increased competitiveness."

One of Japan's largest oil companies set out to formalize its innovation cycle (Plan-Do-Check-Act). To do it, they needed a system that could support continuous learning while improving visibility and communication across teams.

Before building a digital backbone

As the company recognized the imminent retirement of operators, critical expertise and knowledge was at risk of being lost. The business needed a unified operations management system to capture and connect event logging, shift handover, work instructions, inspection rounds, near misses, abnormal events, DCS limit changes, asset maintenance and reporting.

After building a digital backbone

With Tempo Operations Management in place, operators and supervisors gained access to the right data, events and instructions specific to each operational unit and area.

The result? The team established a uniform, transparent and accessible system, driving enhanced efficiency, safety and operations.

Teams can now monitor tank levels, manage operating limits, report asset issues and generate work requests with greater speed and accuracy.

Success Snapshot	
Customer	• Japan's largest oil company • 57 tanks containing up to 7,350,000 m3 of crude oil reserves
Challenges	• Loss of experienced personnel creating knowledge gap • Need to capture expertise, improve data visibility and collaboration • Limited learning process
Solution	Tempo Operations Management
Results	• Retained relevant data, events and instructions specific to each operational unit and area across the workforce • Established a uniform, transparent and accessible system • Improved efficiency, safety and operations

Customer success spotlight

Maximizing human performance with the right digital fit

"This solution has delivered a remarkable change in how our pipelines are operated. Our control room likes using Tempo Operating Procedures better than any other tool. Being able to take the procedure offline on their tablet has been really powerful. This positive shift was directly attributed to the system's ability to assist workers by providing improved procedures and training."

A pipeline company in the United Kingdom set out to improve the work experience of its control room operators while closing gaps in procedure and training lifecycle audits.

Before building a digital backbone

With experienced operators nearing retirement, critical knowledge was at risk of being lost. The business needed an integrated system that could capture expertise and support everything from event logging, shift handover, work instructions, inspection rounds, near misses, abnormal events, DCS limit changes, asset maintenance and reporting.

After building a digital backbone

With Tempo Operations Management, operators and supervisors gained access to relevant data, events and instructions specific to each operational unit and area.

The result? The team established a uniform, transparent and accessible system for enhanced efficiency, safety and operations. Teams can now monitor tank levels, supervise operating limits, report asset issues rand generate work requests – all for enhanced operational excellence and continuous improvement.

Success Snapshot	
Customer	Fortune 500 company
Challenges	• Limited adoption of procedures • Trouble accessing procedures • Procedures not aligned with tasks • Gaps in writing practices and human performance elements in procedures • Manual, siloed governance process
Solution	Tempo Operating Procedures
Results	• Reduced transient pressures by 50-65% across 70% of pipelines • Fewer corrective actions in training content and procedures • Increased hazard identification and reporting • Strengthened continuous improvement by identifying and retaining worker insights for enhanced safety • Improved tracking and automated review cycles • Reduced administrative corrective actions by 54% • Improved accessibility to procedures and content, resulting in reduced downtime • Increased adoption and safety performance

Our oil and gas customer successes

Downstream

Downstream operations deliver products the world depends on. In the United States alone, 128 refineries, with many concentrated along the U.S. Gulf Coast, produce more than 4.8 billion barrels per day (BPD). From fuel to plastics and industrial inputs, downstream operations power daily life and global industry.

To keep pace, operators need streamlined and connected operations. To achieve this, stakeholders must have access to accurate, critical content and asset information to help reduce downtime and keep production on track.

Here's how downstream leaders use digital solutions to gain operational efficiencies and long-term results.

Customer success spotlight

Amplifying operational efficiency with optimized asset management

"Configuration was simple and complex at the same time. We went through a few iterations to get things right, and today we see the huge benefit of what we have done. Attune EAM has become the backbone of our integrated systems and gives us an agile structure."

A petrochemical-focused energy sector company serving Trinidad and Tobago needed to strengthen efficiency, safety and sustainability.

Before building a digital backbone

The customer faced operational challenges with digitalizing and streamlining its processes and procedures using a native platform. They required a unified ecosystem that provided 24/7 access across stationary and mobile devices. The customer also required a robust asset management and maintenance system for enhanced operational efficiency and support compliance.

After building a digital backbone

With Attune EAM in place, operations remain aligned to industry best practices and tailored workflows. Technicians can use mobile devices to identify corrective actions, submit work orders and access asset data. Integration across inventory, procurement and work management has created a more connected operation while linking EAM and financial systems has improved reporting and budget management.

The result? The team has full functionality of the EAM solution for stronger operational efficiency, lower risk and more control across the asset lifecycle.

Success Snapshot	
Customer	• Natural gas and petrochemicals company in Trinidad and Tobago • 60+ employees
Challenges	• Difficulty digitalizing and streamlining their processes and procedures • Required a robust asset and maintenance management system to ensure operational efficiency and regulatory compliance
Solution	Attune EAM
Results	• Optimized use of mobile devices for corrective actions, submitting work orders and accessing asset information • Integrated with financial systems for improved reporting and budget management • Reduced risk of unscheduled downtime

Customer success spotlight

Elevating transparency and efficiency to the next level

"Octave tools help us to improve overall efficiency. Revision control, tag management and handover from engineering to operations is faster and easier when everybody has access to the right information at the right time."

A Swedish-based global refiner specializing in naphthenic specialty products (NSP) and bitumen recognized the need to standardize the use of Octave tools across all of its refinery sites. Before implementing digital solutions, the refiner faced challenges in improving engineering and operational efficiencies while reducing risk.

Before building a digital backbone

The customer had previously utilized a variety of Octave solutions to align and standardize data across systems, create a digital twin, automate workflows and establish a centralized hub for design data and documentation. To achieve its goal of standardization, the refiner sought a solution that would enable information exchange and better control of data.

After building a digital backbone

The customer implemented Octave's InConcert Core solution for a single source of truth for engineering and operational data, optimizing efficiency throughout the facility lifecycle. Through this collaboration, the refiner was able to achieve automated and object-based information exchange, resulting in improved control over tags, documentation and associated data. As a result, the generation of design documentation became quicker and more efficient, streamlining operations and enhancing productivity. Through the use of integrated Octave solutions, the customer has elevated the transparency of its data management between the engineering teams.

Success Snapshot	
Customer	• Global company headquartered in Sweden with more than 200 employees • Specialization in naphthenic products (NSP) and bitumen sets
Challenges	• No automated workflows • Difficult version control between departments • Lack of documentation accuracy • Limited tag management, contributing to long search times trusted and fragmented information
Solution	• InConcert Core • Facets P&ID • Facets Instrumentation
Results	• Achieved a single source of truth for engineering and operational data • Secured an automated and object-based information exchange • Improved control over tags, documentation and associated data • Quicker, more efficient generation design documentation

Conclusion

EPCs and owner operators face increasing pressure to reliably deliver on time, within budget and with the right resources.

Wherever you are in your digital transformation journey, Octave helps you move forward with clarity to elevate digital maturity and improve performance across projects and operations.

See how you can fuel your future with Octave's Smart Digital Reality.

Learn More

Contact Us

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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