BROCHURE

Octave Facets Instrumentation

Sharpen your instrumentation engineering and design



Schematics and 3D modeling

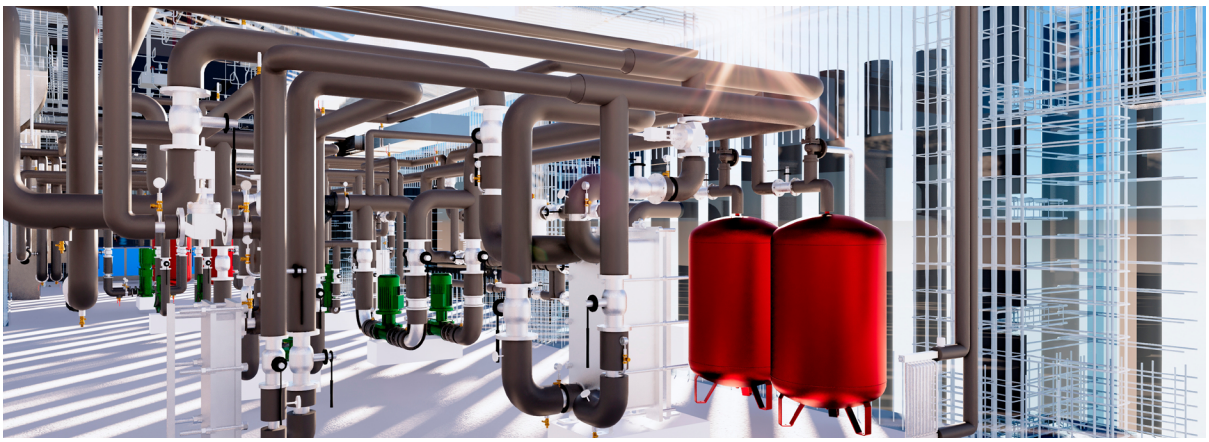
Facets Instrumentation

A proven, market-leading solution to help improve your instrument design from FEED to operations.

Octave Facets Electrical
Octave Facets Instrumentation
Octave Forte Isometrics
Smart Engineering Integrity
Octave Facets P&ID
Octave Facets P&ID Engineer
Octave Facets P&ID Design Validation
SmartSketch

Connected by design: project visibility through Octave's digital backbone

Facets Instrumentation is part of Octave's greater ecosystem that incorporates the digital backbone, which enables real-time connectivity amongst all of Octave's digital project solutions as well as into the operations and maintenance of an asset. With any internet access or smartphone, project teams have access to tailored data specific to their needs with the ability to collaborate with their peers instantly. This unlocks a continuous feed of project data regardless if stakeholders are users or not.



User interaction

The latest version of Facets Instrumentation places a great emphasis on the user experience. Today's users expect a modern look and feel. But more importantly they need an interactive solution that is easily understandable by the engineers and designers using the software. This helps users to work as efficiently as possible without the confusion of too many options or complicated, IT-type terminology.

In addition, the new version harmonizes the user experience across all Octave Facets solutions. For example, the Engineering Data Editor (EDE) is the same in all solutions, which covers the learning curve.

The Facets Solution Suite matrix

Solution	Complimentary applications				
Facets P&ID*	Process engineer	Engineer	Engineering integrity	Design validation	Octave Aspect
Facets Electrical			Engineering integrity		Octave Aspect
Facets Instrumentation	External editor	Operational excellence	Engineering integrity		Octave Aspect

*ISO 15926 integrated capability

All can export to Forte 3D (formerly Smart 3D) and SmartPlant Enterprise for owner operators. An interface to PDMS is also available.

Task-based approach

Executing a project involves many tasks and disciplines. Connecting these tasks in a smart way will result in better end deliverables that will support your facility's construction and operations.

Facets Instrumentation is built around a task-based environment, keeping the interface focused on exactly what's needed at each stage:

- **Process Task** – Retrieve process data from Octave Facets P&ID (formerly Smart P&ID), edit and add information to set the design basis for the instrument.
- **Instrument Index Task** – Retrieve and expand the instrument rule base from the P&ID into all physical instruments to perform the function using the fit for task EDE.
- **Specification Task** – Use the EDE to create instrument specifications, which can include Facets Instrumentation data as well as data coming from or related to vendors.
- **Wiring Task** – Set up the EDE to assign the cables, junction boxes and wiring environment to auto-connect the instruments and junction box and check for connectivity. This focus leads to increased productivity and data quality. Productivity gains of more than 40 percent have been reported.
- **Calibration Task** – Support the interface between Fluke calibration and Facets Instrumentation to manage the accuracy of the measurements.



Enhancements

The latest version delivers meaningful upgrades across user experience, data quality and productivity. Integrated with Octave's digital backbone, Facets Instrumentation connects to all project data, enabling faster design iterations and tighter project collaboration.

The query builder lets engineers and designers find and shape data views using engineering language, no database expertise required. Results surface in the Engineering Data Editor, where quick data entry, modification, auto-filtering and comparison are all at hand. Significant upgrades to Project Management functionality give engineers better control over scoping and merging projects. And integration with the to-do list helps teams make smarter decisions, with color-coded data access across tasks and disciplines.

Bridging the gaps

Data sharing is the cornerstone of productivity and data quality drivers. Facets Instrumentation receives data from several sources, such as the P&ID team, process group, electrical team and piping department. After creating the design, Facets Instrumentation then feeds data back to the piping group for the inline instruments, electrical for interlocks and more. Facets Instrumentation also interacts with third parties and vendor catalogs, proving that data management is a key factor for success.

Facets Instrumentation supports operational tasks, not only by generating as-built design but also through offering a seamless interface with Fluke for calibration and an interface with ERP providers such as SAP for maintenance scheduling.

Vendor and catalog data access is increasingly critical to productivity and design quality. Rather than locating and re-entering data in Facets Instrumentation, users can pull directly from vendor sources: I/O cards for DCS, instruments from vendors like E+H, valves from Emerson. The right data, right when you need it.

Deployment

Plant owners face real, compounding challenges:

- Meeting schedule, cost and quality standards
- Data handover to fit operational tasks
- Management of change
- Safety and regulatory compliance
- Compliance with project scope and requirements and the ability to validate them during the project phases

Facets Instrumentation is built to take these on. Many owners are also choosing to deploy Facets Instrumentation and other tools using a hosted environment. This gives owners a central place for all project data, enforcing consistent engineering standards and practices and streamlining handover to the operational team.



Value proposition

Gain value across the workflow. Facets Instrumentation addresses instrument engineering and design processes throughout the plant lifecycle – from process cases through to concepts, design, construction and operational tasks like calibration.

EPCs and owner-operators have relied on it to successfully execute industry projects and operational tasks for years. Large-scale projects, including US$18 billion LNG facilities, have been designed with Facets Instrumentation, and the solution now supports the operations of those plants. It also has a proven cloud deployment record.

Facets Instrumentation is a single source for all instrumentation data and tasks, enabling consistent creation of deliverables. The one constant in engineering is change. Facets Instrumentation keeps changes consistently reflected and flagged across the board.

Take advantage of the solution's rules to make the right decisions as early as possible.

Tasks	Labor Hours	
	Without Facets Instrumentation*	With Facets Instrumentation*
Instrument index	200	150
Specification sheet	200	100
Wiring	300	200
Associated documentation and change management	200	50
Other	100	100
Total project	**1000**	**600**

40% savings

*Rounded assumptions to indicate potential savings based on market inputs.

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.

©2026 Octave Intelligence plc and/or affiliates. All rights reserved.

