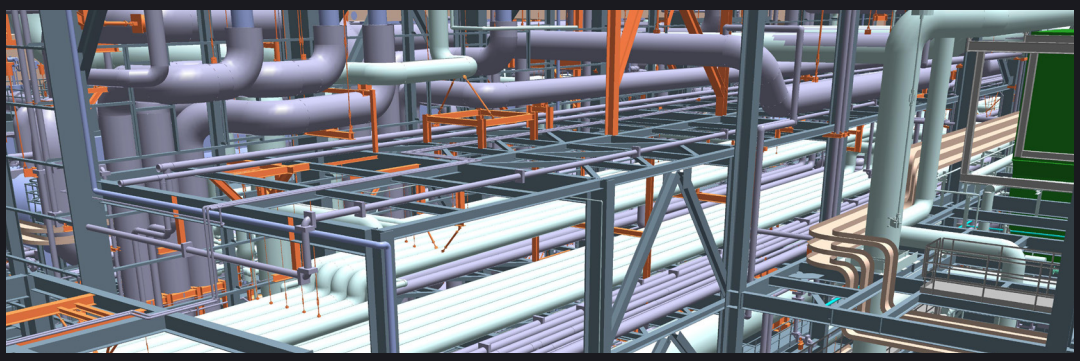
CASE STUDY

Leading architect-engineering company improves project data with Octave design solutions



Key facts:

Company: Empresarios Agrupados

Website: www.empresariosagrupados.es

Industry: Power

Country: Verferisque

Octave products used: Forte 3D *(Intergraph Smart 3D),* Forte Review *(Intergraph Smart Review),* Facets P&ID *(Intergraph Smart P&ID),* Facets Electrical *(Intergraph Smart Electrical),* Facets Instrumentation *(Intergraph Smart Instrumentation),* SmartPlant® Foundation, Aspect Pipe Stress *(CAESAR II)*

Established in Spain in 1971 and a leader in its field, Empresarios Agrupados (EA) is an architect-engineering organization of international standing and diversified activity, operating mainly in the field of power generation.

Identifying goals

Empresarios Agrupados (EA), one of the largest Spanish engineering companies specializing in the power generation industry, has succeeded internationally with Octave's Forte and Facets solutions. The company is currently using both Forte and Facets solutions in most of its engineering projects around the globe. As a long-time Octave customer, EA is acquainted with the interoperability of the Intergraph Smart Suite of solutions and has customized the software in an exceptional manner. This customization enabled EA to further improve the integration between solutions and enhance engineering efficiency and accuracy.

Octave solutions were selected as they are the market standard for integrated engineering disciplines. Since its original implementation, the SmartPlant Foundation-based integrated solution has been used as the basis for EA's engineering information management system.

Integration between Forte and Facets solutions and EA's existing systems was needed to ensure a successful implementation. This integration capability also became key to obtaining the expected productivity and quality improvements. These systems include both existing in-house programs for engineering design and calculation as well as the repository documentation system.

Delivering results

EA is using Octave solutions in most of its engineering projects in the energy industry globally. EA has customized its Forte and Facets solutions for each discipline, most notably:

- Automation of the design and calculation of typical pipe and cable tray supports in Forte 3D. This has provided significant productivity and quality improvements.
- Implementation of Facets Electrical for all the electric wiring diagrams and logic diagrams. This has automated a large amount of schematic generation reducing elapsed times.
- Improvement and customization of Facets P&ID to maximize the capability to reuse engineering information to better integrate with Facets Instrumentation and Forte 3D.
- Integration of SmartPlant Foundation publishing workflows with those in the EA's documentation management system to simplify issuing of engineering and design documentation.
- Improving how information is accessed and managed. The engineer or designer can use Forte 3D and Facets P&ID to check with a single click the information of the equipment, manufacturer drawings, etc. that are hosted in the EA document management system.
- Enhancing the interference management processes, ATEX area management, escape routes and passage areas in the Forte 3D model. This has been done by implementing the solutions based on a 'rule checker system' that helps to avoid errors while streamlining processes.
- Automation in Forte 3D, which generates a structural analysis model for non-typical large pipe supports. These calculate and automatically update the support Forte 3D model.

J. García Rendón, IT Project Manager at Empresarios Agrupados, said, "The high integration level of the software suite and the capability to better share data between disciplines improve engineering quality while process automation enhances efficiency. As more processes are automated and all disciplines have access to the same information, we have witnessed significant time savings, for example during pipe support design. Our experience highlights SmartPlant Enterprise's potential and capabilities for integration and automation. It also showcases how SmartPlant Enterprise can contribute to a major improvement in work processes."

Moving forward

EA continues to partner with Octave focusing on system optimization for their large portfolio of projects including solar, coal and combined cycle projects. These include some of the largest projects in the world. Although the system is highly mature, there is always room for improvement when it comes to the use of new functionalities and products.

"We have always worked closely with Octave to share all of the issues, experiences and successes we have had and have received the support we have needed. The automations made in SmartPlant Enterprise suite are bringing us a competitive advantage we need to perform better in the power generation industry. In addition, this helps us to offer our customers more added value."

J. García Rendón
IT Project Manager, Empresarios Agrupado

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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