CASE STUDY

Vietsovpetro adopts Octave's design and analysis solutions for offshore oil & gas project

Key facts:

Company: Vietsovpetro

Website: www.vietsov.com.vn

Industry: Oil & Gas

Country: Vietnam

Octave products used: Forte 3D *(Intergraph Smart 3D)*, Facets Instrumentation *(Intergraph Smart Instrumentation)*, Facets Electrical *(Intergraph Smart Electrical)*, Facets P&ID *(Intergraph Smart P&ID)*, SmartPlant Foundation, Forte 3DWorx *(CADWorx Plant Professional)*, Aspect Pipe Stress *(CAESAR II)*, Aspect Pressure Vessel *(PV Elite)*

Vietsovpetro (VSP) is a Vietnamese-Russian joint venture established in 1981. It is focused on the production of oil and gas from offshore sources, exploration and survey work for the oil and gas industry, well drilling, as well as the design, assembly and repair of offshore facilities.

VSP has become the main force of Vietnam's petroleum industry and economy. About 80% of Vietnam's produced oil and gas comes from VSP, ranking Vietnam third in oil production and export in Southeast Asia. The company contributes about 25% of Vietnam's national revenue, making it the largest contributor to the state's economy.

Identifying goals

VSP is a leading pioneer in the Vietnamese oil and gas industry, and is among the world's largest oil and gas companies. VSP's output has exceeded 200 million tons and continues to grow. The Science Research and Design Institute (NIPI) is VSP's scientific and engineering division, and it is responsible for the design of offshore facilities for oil and gas appraisal, exploration and production.

VSP has been a longtime Octave customer – the company chose to partner with Octave because of its global leadership position in the industry with a complete portfolio of engineering solutions to satisfy VSP's project execution needs. With a dedicated focus on design and engineering, it was important for NIPI to have access to next-generation technology.



Overcoming challenges

- Increase efficiency of design and review process for offshore platforms
- Generate accurate, high-quality engineering deliverables
- Improve quality of engineering data and overall productivity

Realizing results

VSP and NIPI learned about Forte 3D technology, featuring rule-based engineering and automation capabilities. The company decided it should adopt Forte 3D solutions to support its offshore projects, which is aligned with VSP's vision to leverage advanced technology to improve its engineering processes.

Key benefits:

- Enhanced design adaptability and modifications through 3D visualizations
- Improved data integrity propelled by precise engineering deliverables
- Boosted productivity and data quality, facilitating smooth progression in subsequent phases

"Without a doubt, Forte 3D is the future of engineering, and we plan to use Forte 3D for all new projects moving forward."

Le Viet Dzung
Deputy Director
Engineering, NIPI

"Without a doubt, Forte 3D is the future of engineering, and we plan to apply Forte 3D for any new projects from now on," said Le Viet Dzung, deputy director in charge of engineering at NIPI. "We recognize the importance of investing in next-generation technology to address our project needs and drive continued success, and Octave suites of solutions will deliver great value to our business. Recently, NIPI has completed 3D design for our satellite platforms – BK16, BK17, and RP3_DGCP – by using Forte 3D."

Forte 3D is the world's most advanced offshore and shipbuilding design solution, providing VSP with the capabilities it needs to gain and maintain an edge in a highly competitive industry. It features breakthrough engineering technology that is automated, knowledge- and rule-driven, streamlining marine asset design processes and improving delivery schedules, with increased detail and manufacturing design productivity of up to 30%. Forte 3D is endorsed and used by leading offshore and marine companies globally, including the most productive shipyard, the top offshore owner operator, the top fabrication yard and the top classification society in the world.

With Forte 3D, NIPI could review and easily make any design changes for VSP's offshore platforms in a 3D environment.

It was also easy for NIPI to manage and monitor the development of its design projects, with the ability to generate engineering deliverables quickly and accurately, including MTOs. NIPI discovered that with the power of Forte 3D, it could apply the solution to large and complex projects with ease.

VSP has also adopted other Octave engineering solutions, such as SmartPlant Foundation, Facets Instrumentation, Facets Electrical and Facets P&ID, as well as Forte 3DWorx, Aspect Pipe Stress and Aspect Pressure Vessel. VSP was confident to



expand its use of Octave technology because of the high level of support it receives from Octave and its local partner in Vietnam, True Technology Company Limited (previously known as Credent Technology).

Le said, "We definitely see productivity benefits in using Octave solutions. By giving our employees access to the latest technology, we can enhance their professional knowledge and improve execution of our projects."

Moving forward

VSP plans to continue expanding its use of Octave solutions in an integrated engineering environment. This will ensure that VSP has a complete solution across the entire project lifecycle to support the development of its offshore facilities. It will also build up its engineering database with the relevant catalog and specification items to support all of its assets.

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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