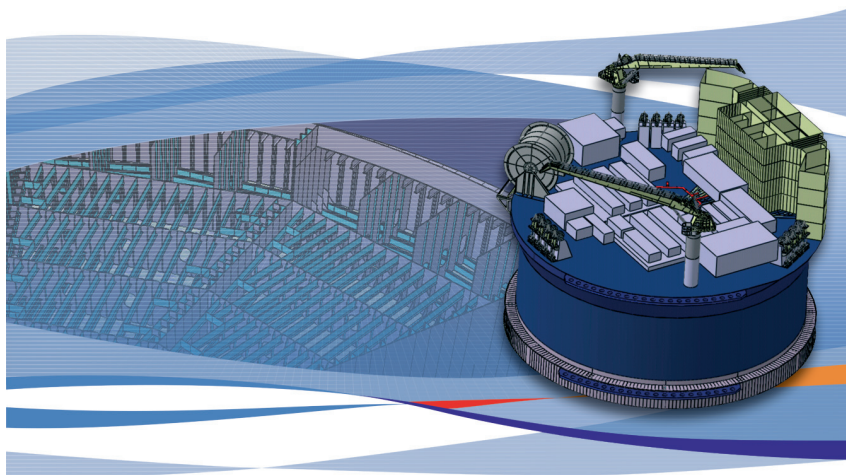


IBM PLM helps Sevan Marine meet oil industry's toughest challenges



“We can do a basic design in just one week with a handful of our engineers because IBM PLM reduces conceptual design time by up to 70 percent.”

– Tom Erik Smedal, Project Manager, PLM Systems, Sevan Marine

Overview

■ The Challenge

Sevan Marine needed a system that could manage development, analysis, manufacturing and operations from a single user interface, eliminating data translation and errors.

■ The Solution

IBM PLM allows Sevan Marine to do the work of a much larger organisation, reducing conceptual design time by up to 70 percent.

■ The Benefit

With IBM PLM, Sevan Marine collaborates seamlessly with sub-contractors, regulators, manufacturers and the client to deliver projects on time and on budget.

With IBM PLM, Sevan does more with less

Sevan Marine is a 30-person company established in Norway just four years ago. But in the highly competitive market for Floating Production, Storage and Offloading (FPSO) units for offshore oil production, IBM PLM is helping Sevan emerge as a powerful force.

Before IBM PLM, Sevan Marine used several different systems to create basic designs, perform analysis and visualise ideas. The multiple systems created multiple problems, however, forcing Sevan to repeatedly translate designs from one to the other, creating time-consuming workflow and raising the potential for error.

The risk was unacceptable, especially because Sevan Marine was introducing an extremely cautious industry to a phenomenally innovative design – an FPSO shaped not long and narrow like a ship, but round and flat like a cylinder. It calls the design the SSP – Sevan Stabilized Platform.

Data translation headaches cured

To succeed in the market, Sevan Marine needed an error-free process that could prove the advantages of its design, including its ability to endure the ocean's incessant pounding even in hurricane-force winds.

The massive and revolutionary SSP units – ranging from 200 to 350 feet in diameter – provide offshore storage and processing for oil pumped from deepwater wells, along with offloading stations for tankers and living quarters for crew. The units are designed for a

productive life of more than 20 years. Although Sevan Marine offers many variations, it wanted a single process to engineer and manufacture all of its designs regardless of size and organisational structure.



Sevan Marine's solution, incorporating CATIA® V5 for design and analysis, SMARTEAM® for collaboration and data exchange and TeamPDM as a scalable repository for its design and production documents, allows the firm to tackle massive projects and formidable competitors. All three packages are from IBM's 20-year software partner, Dassault Systèmes.

"We soon realised that with IBM PLM, a relatively small organisation like Sevan Marine could develop and handle such a huge project," said Tom Erik Smedal, the company's Project Manager for PLM Systems. IBM PLM helps Sevan find the most efficient way of re-using parts and knowledge from other projects.

Powerful tools, seamless collaboration

Sevan's projects involve subcontractors that use other CAD systems. IBM PLM provides excellent data exchange facilities through its IGES, STEP and AutoCAD translators. With PLM, Sevan can now collaborate seamlessly across other CAD systems. "We import products from subcontractors directly into our

detailed General Assembly model to ensure all the interfaces between the parts are correct, perform clash tests and do different kinds of mass calculations," Smedal said. "The major benefit is amazing speed in product development, and the combination of CATIA and SMARTEAM gives us the essential control of the project to ensure delivery on time and on budget."

"Development of fully constrained skeleton models showing the basic design and main scantling structure is accomplished in record time," he said. "With CATIA V5 we can now try different steel structures and perform new analysis several times a day to find the optimal solution." CATIA V5 then automatically generates 2D drawings for submission to marine class societies, which must certify the designs are seaworthy and safe.

Sevan Marine has only begun to realise the full benefits of its IBM PLM implementation, however. Future plans include focusing on the system's parametric design features, which will allow Sevan to rapidly prototype new designs from existing models and perform 'what if?' assessments of competing design approaches.

For more information, contact your IBM Marketing Representative, IBM Business Partner or visit the IBM PLM Web site at: ibm.com/solutions/plm



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