

To promote collaboration and innovation and maximize the use of its manufacturing equipment assets, industrial equipment maker Enquip chose Dassault Systèmes' CATIA and ENOVIA. The company has standardized manufacturing processes, reduced overall manufacturing costs, and realized significant gains in productivity, thereby shortening product delivery times.

SUCCESS STORIES



Enquip improves manufacturing performance by 30% with CATIA and ENOVIA

Brazilian company Enquip, located in the southeastern state of Rio de Janeiro, develops and manufactures industrial equipment for use in cargo handling solutions and products, including hydraulic winches and electric or pneumatic telescopic cranes used in the energy, shipbuilding and construction industries. Certified ISO 9001, Enquip has invested in technology solutions with an eye toward sustainable development.

In its efforts to optimize manufacturing processes and use of existing hardware and machines, Enquip faced a key challenge – how to expand and improve management of its engineering data, a function that was previously limited due to integration and programming issues with production equipment. In 2009, Enquip chose CATIA and ENOVIA SmarTeam to improve its technology in the areas of product design, finite element simulations, kinematics analysis, and parametric detailing in production. Enquip required an integrated PLM solution that was robust, came with technical support, and was easy to integrate into existing software solutions. The implementation and rollout of these solutions was done by Dassault Systèmes and Tecmes, its business partner in Brazil.

PERFORMANCE IMPROVES BY 30%


With the Dassault Systèmes PLM solution, Enquip now manages the development of manufacturing equipment virtually, but also validates manufacturing operations first using simulation to test the operation of the machines and the processes beforehand. "With CATIA and ENOVIA, we noticed a 30% improvement in overall manufacturing performance and a significant step forward

in the quality of our products, all resulting in the improved use of our machines," said Marcello Pecci, Plant Manager, Enquip. The optimization of CNC programs has also resulted in better use of machine resources and a more dedicated and trimmed production cycle.

By integrating all manufacturing processes into a single workflow, the company now has a "best practices" model that protects its intellectual property and allows Enquip to reuse successful manufacturing processes in other areas. The Dassault Systèmes' PLM solution also allows Enquip to quickly alter product designs throughout manufacturing in order to comply with any last-minute market changes or industry requirements.

OPTIMIZED USE OF RESOURCES

With an accurate design plan, which was tested virtually, Enquip made better use of its

raw materials and avoided environmental waste. Complex geometric models that before required a great deal of programming time became easier to execute. As a result, the machining cycle per part produced was cut significantly. The time savings translate into increased resources that can be invested in the development of new products. "The results attained were exceptional and exceeded expectations," Pecci said. "The new PLM rollout was a success and it positively impacted the entire organization." 

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