

T3 Energy Services

Ensuring design revision accuracy with ENOVIA SmarTeam



Overview



■ Challenge

T3 Energy Services needed to secure its intellectual property, ensure that proper revisions of designs are used across its multiple locations and work more effectively with 3D CAD design files.

■ Solution

T3 Energy chose Dassault Systèmes' ENOVIA SmarTeam product data management software to establish a distributed vault system that manages its design data, bills of material (BOMs), and documents.

■ Benefits

With ENOVIA SmarTeam, T3 Energy established secure file permission processes and a BOM report structure that ensures proper design revisions are used across its multiple sites.

Optimizing data and document management

Houston-based T3 Energy Services, Inc., designs, manufactures, and repairs custom-machined well control performance parts and components for oil and gas industry installations along the U.S. Gulf Coast, as well as in Canada, Mexico and around the globe. The company's more than 500 employees are spread across multiple sites in North America and work with suppliers and partners worldwide.

T3 Energy has long relied on 3D CAD software for its product designs. But as the number of T3 locations proliferated and the distance between them increased, so did the challenges of managing its product data and securing its intellectual property.

To solve these challenges T3 Energy selected ENOVIA SmarTeam from Dassault Systèmes. ENOVIA SmarTeam met T3 Energy's need for multiple data vaults serving widely dispersed physical sites. Its multi-CAD capabilities ensured compatibility with

T3 Energy's 3D CAD system. ENOVIA SmarTeam also easily maintains part, model, drawing and assembly relationships while improving revision control.

ENOVIA SmarTeam's check-in and check-out features ensure that all users, regardless of location, access the latest version and that no changes are overwritten accidentally. T3 Energy currently has 24 sites and six product lines that use ENOVIA SmarTeam. Therefore, keeping everyone in synch is critical.

Staged implementation

One of ENOVIA SmarTeam's key advantages for T3 Energy was the ability to start small and roll out in a step-wise fashion across the company's key product lines. T3 Energy began with its Pressure Control Group.

"We used Pressure Control as our pilot to work out our implementation process," says Danny Wolfe, Engineering Manager for T3's Pressure Control Group. "Once we had our



"The BOM report structure that we've developed using ENOVIA SmarTeam has become the hub at the spoke of the wheel for us."

Danny Wolfe, Engineering Manager,
Pressure Control Group, T3 Energy Services



process defined to an acceptable level, we could integrate another product line and bring them onboard quickly. Being able to do it that way, and keep it contained to a small group of users in the beginning, was highly beneficial.”

Wolfe says the same approach was used with view-only users, including T3’s manufacturing, sales and quality control teams. These users rely on ENOVIA SmarTeam’s Navigator web interface, a capability that proves its value on a continuing basis. “Remote access is paramount as new groups and partners come on board,” Wolfe says. ENOVIA SmarTeam Navigator makes product data widely available throughout the company in an affordable way.

Customized, integrated BOM management

T3 Energy customized its ENOVIA SmarTeam implementation to create a Bill of Materials (BOM) report that associates an individual item with all related documents. The BOM report accommodates T3 Energy’s unique needs by creating a report that is a hybrid of items and document specifications, with parts and their related documentation (Word documents, CAD drawings, etc.) all included in one navigable, hierarchical structure.

The same code that generates the report also pushes metadata from ENOVIA SmarTeam to T3’s distributed ERP (enterprise resource planning) systems. “We no longer need to do dual entry of data, so ENOVIA

SmarTeam has become the hub at the spoke of the wheel for us,” Wolfe says.

ENOVIA SmarTeam will eventually become the designated repository for all revision-controlled documents at T3 Energy. “Documents for legal, human resources, manufacturing – it will branch out from engineering until eventually every group at T3 uses ENOVIA SmarTeam for its product data management,” Wolfe says.

The company is even working on mapping its ISO/APQ1 quality system, with plans to store and manage its data in ENOVIA SmarTeam. T3 Energy also plans to begin using the “items” capability of ENOVIA SmarTeam to represent physical components, in place of its current document-centric approach.

T3 Energy further plans to extend ENOVIA SmarTeam to link with its computerized numeric control (CNC) milling machines. This will ensure the most up-to-date design revisions are available to the manufacturing floor, eliminating the potential for errors and their associated costs.

“Some of our single components are 20,000-plus pounds, so having the right version of a design available to the shop floor can easily prevent a mistake that would cost \$10,000 to \$20,000,” Wolfe says. With such savings, ENOVIA SmarTeam is quickly paying for itself and generating a substantial return on T3 Energy’s investment.

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Danny Wolfe, Engineering Manager,
Pressure Control Group, T3 Energy Services



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