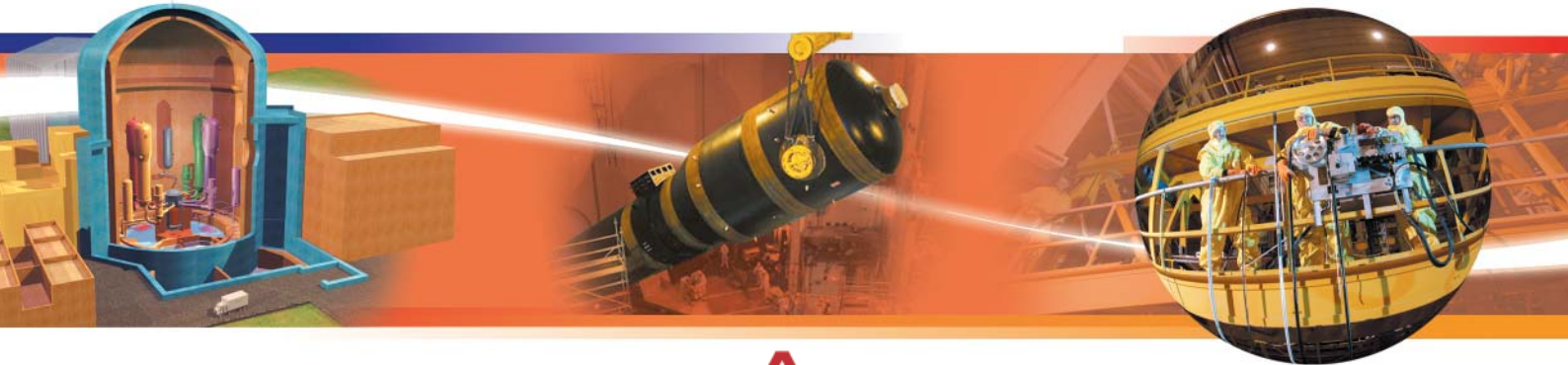


AREVA NP, INC.

AREVA NP generates powerful benefits with ENOVIA SmarTeam



Overview

■ Challenge

AREVA NP wanted to locate key engineering data more quickly by creating a centralized, searchable database.

■ Solution

AREVA NP chose ENOVIA SmarTeam for its robust capabilities and an architecture that supports integration to other enterprise systems.

■ Benefits

Search times have been cut significantly, supporting design reuse, increased design innovation, improved customer responsiveness, and simplified regulatory record-keeping.



"With ENOVIA SmarTeam it takes a couple seconds to find a file, which frees time to focus on creating the best possible design."

Gary Poling, Design Engineer,
AREVA NP Component Repair
Technologies



Nuclear power toolmaker energized by ENOVIA SmarTeam

Utilities worldwide are engaged in a complex struggle to meet the world's escalating demand for electricity without increasing its emissions of greenhouse gases. The challenge has re-focused attention on nuclear power, enjoying a resurgence as today's only commercially viable, carbon dioxide-free technology.

AREVA NP, a world leader in nuclear power services and the only company to cover all industrial activities in the nuclear field, is at the forefront of efforts to construct the next generation of U.S. nuclear power plants. AREVA NP also plays a critical role in maintaining the nation's 103 operating nuclear reactors, each of which is unique. Even "twin" reactors located side by side at the same site can have design differences.

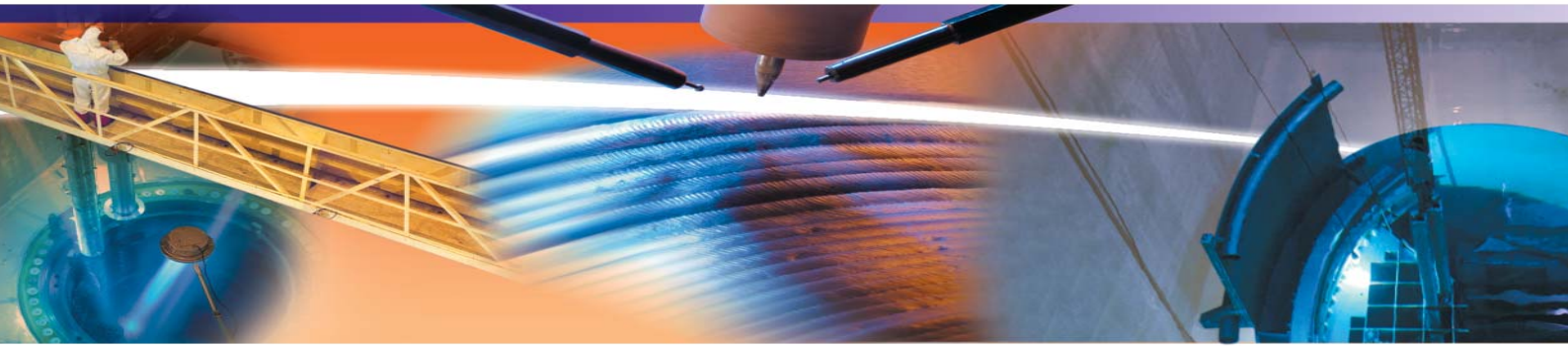
To keep the nation's existing nuclear plants in prime condition, many operators are conducting first-of-a-kind

maintenance procedures. These services often require new tools and equipment – custom designed for specific operations – the specialty of AREVA NP's Component Repair Technologies, a group within AREVA NP Nuclear Services.

Whether AREVA NP is designing replacement equipment or the tools to service existing plants, documentation in this highly regulated industry is critical. Knowing which tools have been designed before also is important to meet unanticipated service requests that must be performed during a scheduled plant shutdown and so require quick turnaround.

"One big piece of our data management puzzle was to have a system flexible enough to allow us to do a design for a job like that as quickly as possible," said Gary Poling, Design Engineer for AREVA NP Component Repair Technologies. "The key to speed is being able to find your design data quickly."





“The robustness of ENOVIA SmarTeam lets you do so much more than the competitors. It gives you all the tools.”

Gary Poling, Design Engineer,
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Existing data accelerates short lead-time orders

Although each order is highly customized, AREVA NP has so much experience in the nuclear industry that it generally has designed something it can use as a starting point for a new project. Building on an existing design saves time, increases the opportunities for design improvements and reduces prototype rework, because many design challenges have already been solved in the initial design process.

The challenge, however, is to quickly locate the best design to use as a starting point. To help address that challenge, AREVA NP Component Repair Technologies chose ENOVIA SmarTeam, a V5 PLM solution from Dassault Systèmes.

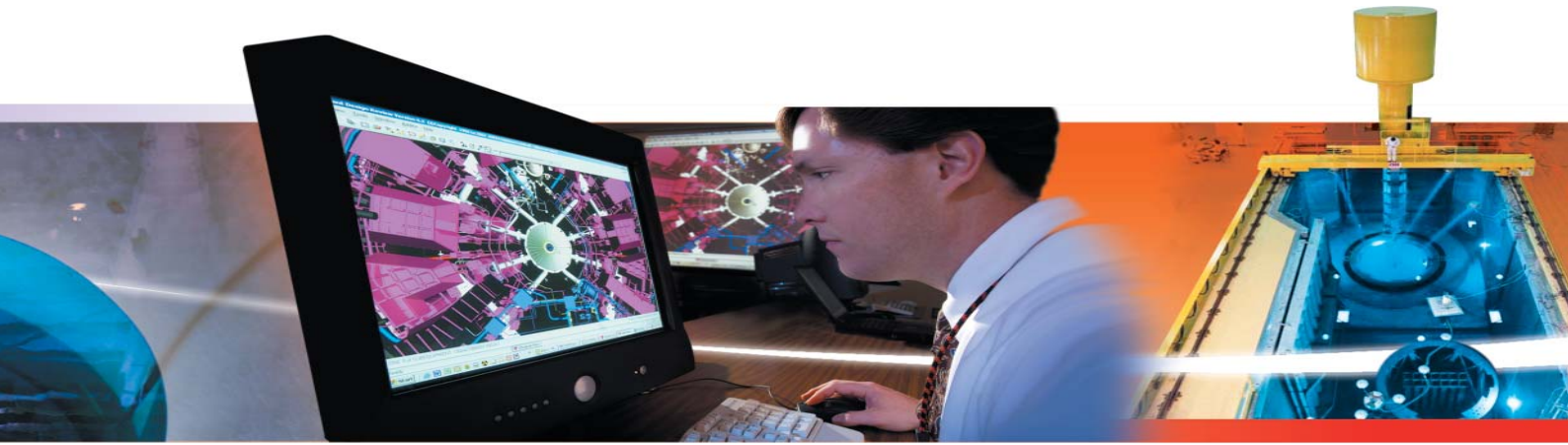
“Before ENOVIA SmarTeam, we saved all of our files on our network drives,” Poling said. “With ENOVIA SmarTeam, we saw the opportunity to improve our search capabilities, making it easier and faster to locate the data we needed and ensuring that data is preserved. ENOVIA SmarTeam also provides revision management, which allows us to see all of the versions, who made changes, when they made

them and why, which is valuable for the regulatory review process.”

With ENOVIA SmarTeam, files are stored in a centralized electronic database with powerful search functions that make it possible to locate one file among thousands in seconds. Multiple search factors are offered, and one small bit of information can be used to quickly drill down to the precise file being sought. “The faster we can find the part, the faster we can begin delivering for the customer and the more time we have to focus on creating the best possible design,” Poling said.

Revision management functions in ENOVIA SmarTeam also ensure that all versions of a design are retained, including both the original design and any modified versions created later. Automated time and date stamps ensure that everyone involved in a project can immediately identify the latest version of a work in progress. This ensures everyone is working on the latest version, another time saver.

“It takes a little more time up front to follow the proper naming conventions, but taking that time saves you so much more at the end, when you



need every second,” Poling said. “ENOVIA SmarTeam automatically generates your parts list from your full assembly and keeps up with your BOMs (Bills of Material). It’s very nice and very fast. All you do is push a button.”

Revision management creates regulatory history

In addition to organizing and locating data, protecting historical versions and tracking work in progress, ENOVIA SmarTeam also is invaluable in helping AREVA NP meet its regulatory documentation requirements.

“Especially for components that will be installed at the nuclear plant and left behind, what we call ‘safety-related’ materials, the documentation is critical,” Poling said. “Every component that gets left at the plant requires an official document that lists all of the other documents necessary to fabricate the component. It’s more than a bill of material. It’s fabrication, assembly, operating and maintenance instructions, and the design data we manage in ENOVIA SmarTeam is crucial to assembling those documents as well.”

Because nuclear power plants operate for decades, the companies that build and service them must keep their data for decades as well. Records management is so important, in fact, that AREVA NP has an entire department dedicated to organizing, storing and retrieving historical documents.

Because the technology for creating and storing documents as PDFs changes more slowly than engineering technology, and because PDF viewers tend to be backwards compatible, AREVA NP has chosen to build its Records Management function around a system based on PDFs. AREVA NP saw an opportunity to further streamline its operations by creating a system to transfer ENOVIA SmarTeam files, which can be stored as PDFs, directly to the company’s PDF-based Records Management system in electronic form. The process eliminated the need to print, physically sign and then re-scan documents such as BOMs and ensured that all data is maintained in an error-free form.

To create the transfer capability, AREVA NP worked with its PLM consultant to electronically integrate

“Purchasing replacement power during a plant shutdown is expensive. If a customer needs something they didn’t anticipate, ENOVIA SmarTeam helps us deliver faster.”

Gary Poling, Design Engineer,
AREVA NP Component Repair
Technologies

its Records Management and ENOVIA SmarTeam systems. When an electronic workflow is approved in the ENOVIA SmarTeam system, the PDF files are copied to a network folder, where the Records Management system automatically imports the files and populates the attributes into the Records Management system. Poling said that users enjoy the paper-free system, which allows engineers to spend more time designing and less time processing and manually tracking paper.

Data re-use vision permeates AREVA NP

Future projects on the company's wish list include linking ENOVIA SmarTeam to AREVA NP's Enterprise Resource Planning (ERP) system. This will eliminate the need to re-type BOMs into the ERP system for functions such as Purchasing and Inventory Management, and make engineering data available throughout the company.

"Our goal is to get to the point where we enter data once and reuse it in many systems," Poling said. "We've done it with Records Management. As

soon as we get our new ERP system up and running, we want to do it there, too. ENOVIA SmarTeam is well-engineered to support that goal. I've looked at other PLM packages, and the robustness of ENOVIA SmarTeam lets you do so much more than the competitors. It gives you all the tools. You still have to pick out the right tool and use it the right way, but the tools to do what you want to do are there with ENOVIA SmarTeam."

AREVA NP also is interested in implementing Community Workspace, a web-based function of ENOVIA SmarTeam that would allow the company to easily share in-process engineering documents with customers and regulators. "Right now we do it all with e-mails and paper sent overnight, but we could save a lot of time and improve the quality of the dialogue we can have with customers if we could both be in our own offices looking at the same 3D model in real time," Poling said. "And all of their comments would be linked directly to the object in ENOVIA SmarTeam, which is powerful in documenting the history of a design's evolution."

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