

Medical devices

FEI

Optimizing four global product development sites to function as one

Products

NX, Teamcenter

Business challenges

Integrate four factories to profit from different skill sets and product portfolios

Improve communication between sites to shrink time-to-market

Keys to success

Integrate multiple, geographically diverse sites

Develop common global processes

Results

FEI is now capable of multi-site development

Company takes advantage of unique abilities of each site

Concurrent engineering is a reality

Time-to-market cut by months; costs reduced as well

The managed development environment, supported by NX and Teamcenter software, has enhanced FEI's competitive advantage

Electron microscope manufacturer takes advantage of global operations to cut costs, improve productivity and speed time-to-market

FEI's acquisitions resulted in four companies with different languages, cultures and applications that needed to work as one.

Language confusion, CAD confusion

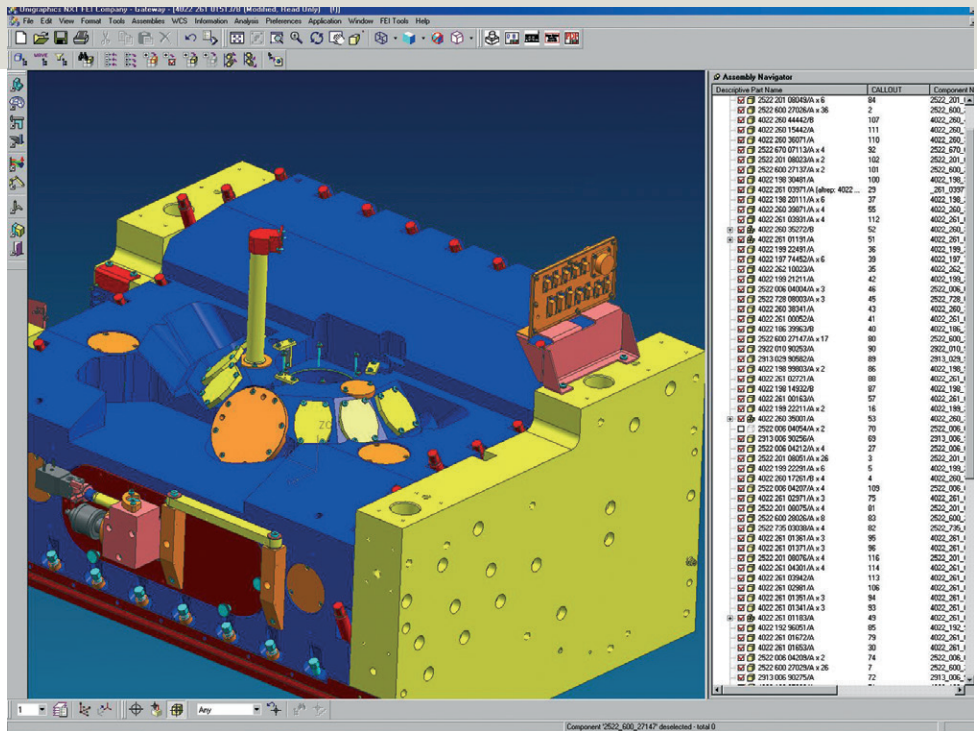
Headquartered in Hillsboro, Oregon, electron microscope manufacturer, FEI, has approximately 1,600 employees worldwide, with additional development and manufacturing operations located in Peabody, Massachusetts; Sunnyvale, California; Eindhoven, The Netherlands; and Brno, Czech Republic. The company gained many of the sites through acquisitions. Consequently, the four main business units function in a diverse environment of languages and cultures.

Until recently, FEI found it difficult for the sites to collaborate effectively. "The specialties of our different sites complement each other, but working together often resulted in Babylonian confusion and therefore inefficiencies," explains Frank de Jong, research and technology manager at FEI. "We realized that if we were better integrated, we could profit more from the varied product portfolio as well as our mutual architecture and innovations. That would also reduce time-to-market."



Siemens PLM Software helps implement global efficiency

To build on the synergy and efficiency that would come from better site integration, FEI turned to product lifecycle management (PLM) specialist Siemens PLM Software, implementing its PLM solutions: NX™ software and Teamcenter® software. One of the reasons FEI chose to go with Siemens PLM Software was the infrastructure provided by Teamcenter to support



global product development. “Teamcenter is made especially for multi-site product teams, such as those we have at FEI,” says Emile Asselberg, a product engineering manager at FEI.

Real-world use confirms advantages

FEI initiated the PLM solution on the development of a product called CLM-3D-DualBeam. The advantages of the new system were apparent from the start and they were “huge,” according to

Asselberg. Efficiency losses of months were gone and FEI reached the point of having a finished product version much faster than before. “We were able to shorten the time needed to get the product right in one go, and the main advantage was the sharing of data,” says de Jong. “That is what this project is about – global multi-site development.” Factories and suppliers also have electronic access to FEI’s data, which makes working with them much easier.

“Teamcenter is made especially for multi-site product teams, such as those we have at FEI.”

Emile Asselberg
Product Engineering Manager
FEI

Solutions/Services

NX

www.siemens.com/nx

Teamcenter

www.siemens.com/teamcenter

Customer's primary business

FEI's Tools for Nanotech™, featuring focused ion- and electron-beam technologies, deliver 3D characterization, analysis and modification capabilities with resolution down to the sub-Ångström level.

www.feic.com

Customer location

Hillsboro, Oregon
United States

A big advantage of the Siemens solution is that FEI is now able to take advantage of concurrent engineering. Asselberg says that instead of waiting for the complete development of a product, production planning begins early. She notes that a number of important questions can be addressed much earlier in the process, such as "Is it manufacturable and reliable? How can we set up service for it?"

"By asking these questions beforehand, we are able to go to the market earlier and that makes a difference not only in time, but also in money," she adds. "With the Siemens solution, the unique qualities of FEI's different sites are now used as a competitive advantage. What is developed in one location is being used in the other. Eventually one could connect mechanics from the service department to the



system. This way they could see exactly which parts were used when and whether these or comparable parts are available. So you see, we're not done developing PLM by far."

"With Siemens' PLM solution, the unique capabilities of our different sites now complement each other. And because they can work together, we can get products to market sooner."

Frank de Jong
Research and Technology Manager
FEI

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