



CUSTOMER STORY

# Global Teamwork Goes Under the Microscope

FEI Discovers Efficient Collaboration in Jama Connect®

Founded in 1971 as FEI Company, Thermo Fisher Scientific's Materials and Structural Analysis division's innovations in electron and ion microscopy have made it the go-to scientific and technical instrument source for companies in six areas of research and development:

- Materials Science
- Life Sciences
- Semiconductors
- Oil and Gas
- Minerals and Mining
- Industrial Manufacturing

The company's customers rely on its combined hardware and software expertise to create sophisticated, easy-to-use equipment. FEI counts on being able to innovate for its customers as the solutions they require shrink in size and grow in complexity.

FEI builds complex electro-mechanical equipment that demands input from cross-functional subject matter experts around the globe. To meet evolving marketplace needs and maintain its competitive advantage, FEI sought to address some of its existing collaboration challenges before they became product development problems.

#### FEI COMPANY SUMMARY:

- 3,000 employees in 50 countries
- \$930 million in revenue
- Designs, manufactures, and supports a broad range of high-performance microscopy workflow solutions at the micro-, nano-, and picometer scales



### CHALLENGES

- Rapidly outdated requirements
- Continuously changing market conditions
- Insufficient access to requirements

### SOLUTIONS

- Streamlined collaboration to keep teams aligned on requirements definitions
- Visibility, accessibility, and clarity around expectation and deliverables
- A clear system for inputting change requests and negotiating scope of work

### RESULTS

- Alignment around technical specs reduced by two to three months
- Accessibility and clarity on team deliverables and stakeholder expectations
- No more lost or buried data: team activity occurs in a database with an easy-to-trace history

## CHALLENGE

# Inaccessible, Outdated, and Continuously Changing Requirements

Keeping the company's global, multi-team efforts focused and moving forward was the goal. But as people often found themselves having to stop and search for missing or current data, FEI realized a few recurring roadblocks kept getting in the way.

One of the most critical problems was that requirements, once created, would quickly become outdated after approval.

Another issue was that fast-changing market conditions meant that engineers and stakeholders required constant updates to document incoming requirements and responses from each team.

The above needs revealed another problem: Not everyone who needed access to requirements and specifications had it.

Whenever someone working on the project didn't have the right set of SharePoint privileges, there was a barrier to incorporating that team

member into the workflow, much less using the project guide. Insufficient access to requirements created avoidable bottlenecks that stalled forward progress.

Ultimately, the Quality Control team bore the brunt of these collective challenges, as the tests and verifications it was asked to perform depended on what stakeholders asked for and what project teams agreed to deliver.



Collaboration in an online document is powerful; no more sending static documents through email.”

MAPS™ Microcopy Software Team

SOLUTION

# Streamlined, Visible, Accessible Requirements with Jama Connect™

FEI stands out from its industry peers and other large organizations in that once a need has been identified, company leadership is decisive in word and action. Some examples:

In November 2014, FEI Product Manager Greg Clark initiated a Jama Connect™ pilot for the new Application Development Group.

Within 30 days, the value was evident and procurement of services and platform implementation were set.

Eight months later, the team began adding licenses to the existing group. New group expansions continue.

Having seen the benefits of a previous effort to migrate from Word and Excel into an object-oriented database solution, FEI management was the catalyst for evaluating and launching a formal improvement project for global rollout; the idea being that if one team sees value, many other teams will too.

Working with representatives from three geographical sites, the improvement project initiative was sponsored by VP of Research and Development Gavin Hartigan and Director of Research and Development Damon Heer of the Materials and Structural Analysis Division (MSD).

Led by Research and Development Systems Engineering Manager Thomas Green, the IT team identified and compared available solutions; five candidates were recommended.

With that in hand, the group listed top use cases and evaluated each solution against the use cases and a list of requirements management solution necessities. Each site leader evaluated the best fits for the use cases and necessities. The group then weighed the averages, pitted them against cost, and selected Jama Connect as the top choice, particularly for its robust collaboration capabilities.

After choosing Jama Software, the group launched another pilot project where each site used Jama Connect for six to nine months on its own project. Afterward, the group evaluated the feedback from site teams before proceeding with the global rollout.

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Jama is a single and consistent tool across multiple products and geographical sites for managing requirements.”

Metrios Transmission Electron Microscope (TEM) Team

## RESULTS

# Greater Alignment and Clarity Across Complex Teams and Projects

The complex electro-mechanical products FEI teams build require lots of input from cross-functional subject matter experts located around the world.

Jama Connect keeps the company's global teams aligned as they collaborate on requirements definitions, and brings visibility, accessibility, and clarity to team deliverables and stakeholder expectations. As market demands change during development, Jama Connect provides a clear system for inputting change requests and negotiating additions to and removals from the scope of work.

**A notable success story:** One particularly complex project team — globally dispersed with senior engineers with cross-functional roles and responsibilities — leverages the accessibility and collaboration aspects of Jama Connect. This team has reduced the time it takes to align on technical specs with other global teams by two to three months.

In addition, teams have migrated many of their procedural documents and checklists into Jama Connect so that all the data needed for stakeholder approvals is in one place.

Before Jama Connect, all requirements docs were MS Office-based, and reviews and revisions to requirements were all negotiated

through track changes, red lines, inserted comments, emails, and meetings.

With Jama Connect, this activity now occurs in a database with an easy-to-trace history. Teams no longer risk losing or burying critical data.

Green adds, “While Jama Connect helps us better track and manage requirements, working in it has a helpful side benefit: We now talk about how to create better requirements in the first place, and I’m very happy to see that.”

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There are numerous problems that Jama Connect helps us with that weren't obvious before; we learn more as we work in it. Much of the benefit is in its efficient collaboration functionality; it's one of the most helpful tools we have.”

**Thomas Green**, Research and Development Systems Engineering Manager, FEI

## ABOUT JAMA SOFTWARE

Jama Software® is focused on maximizing innovation success in multidisciplinary engineering organizations. Numerous firsts for humanity in fields such as fuel cells, electrification, space, software-defined vehicles, surgical robotics, and more all rely on Jama Connect® requirements management software to minimize the risk of defects, rework, cost overruns, and recalls. Using Jama Connect, engineering organizations can now intelligently manage the development process by leveraging Live Traceability™ across best-of-breed tools to measurably improve outcomes. Our rapidly growing customer base spans the automotive, medical device, life sciences, semiconductor, aerospace & defense, industrial manufacturing, consumer electronics, financial services, and insurance industries.