Cumbersome Compliance Practices Eased with Modern Traceability

Plexus Shortens Time to Market and Improves Execution Efficiency with Collaborative Solution from Jama

All companies would like to foster collaboration. But for Plexus, which provides product development, manufacturing and aftermarket services to companies ranging from health care to defense to networking and communication, collaboration is not a wish-list item. It's mission-critical.

Few processes, after all, are more complex than taking a product from concept to design, through to manufacturing and ultimately servicing the end product. To do it well, Plexus must ensure that nearly 500 engineers in seven global design centers communicate easily and seamlessly. They must also be able to document all requirements and tests efficiently and meticulously.

Documentation is critical for Plexus, which works extensively with companies in the healthcare and life sciences fields. Plexus, which is ISO 13485 and FDA Quality System Regulation compliant, designs and manufactures life-critical Class II and Class III medical devices. Developing products for Fortune 500 medical device companies requires a process that guarantees traceability from concept through every design step to production. Without that traceability, the device will not get regulatory approval.

Plexus had a collaboration tool to manage this complicated development process, but the tool had limitations in how it handled requirements.

PLEXUS ®

The Product Realization Company

COMPANY SUMMARY:

• 13,000+ Employees

• 23 Global Facilities

• Provides Product Development and Contract Manufacturing Services

"We had to record test executions manually, which was a cumbersome process," says Aaron Berken, an engineering manager at Plexus. "We wanted the ability to manage and execute test cases directly in the tool. We wanted a smoother path to generating test-result summaries and more detailed test reports. And we wanted a solution with an appealing modern interface that our people could learn quickly and use easily."

In addition, the tool that Plexus engineers were using did not support images and tables. On top of these shortcomings, the vendor was phasing out the existing tool.

Achieving fast, accurate product development with Jama

Plexus considered a variety of collaborative software solutions and chose a product development solution from Jama Software for its ease of use and powerful capabilities. The Jama solution keeps track of the information needed to define, build and test new products for Plexus customers. It enables insertion of all documents and specifications into an itemized database, each item with its own version history and customized attributes. Because Jama links items through trace relationships, Plexus knows at any given moment what impact any change will have on the rest of the project. The company can ensure everyone and everything is synchronized and aligned to a common vision.

"Thanks to the Jama solution, we're now faster, more efficient and more accurate in our work."

— Dave Strandberg
Director of Engineering Solutions Plexus

Jama also tracks test cases and links them to upstream requirements. It executes test runs and logs defects, making it easy to share results with others. Additionally, Jama provides context for decisions, capturing what is being built and why.

"In the past, when we were doing requirements management in a Word document, we were limited to one person working on it at a time," Berken says. "Now we can have many users working on requirements and test-case generation at the same time, and we don't have to worry about people stepping on each other's toes."

The Jama solution's ease of accessibility gives Plexus engineering teams distributed all over the world a real-time view of a project's requirements directly within the solution.

"Before the implementation, managing the requirements process was much more complex," says Dave Strandberg, director of engineering solutions at Plexus. "Thanks to Jama, we're now faster, more efficient and more accurate in our work."

CHALLENGE:

• Find a more efficient solution for managing requirements.

• Execute test cases and record results directly in the collaboration tool.

• Deploy a highly functional solution with a modern user interface.

SOLUTION:

• Better regulatory compliance and requirements traceability

• Improved ease of use through a modern platform

• Simplified requirements management process

Boosting efficiency—and customer satisfaction

With its superior capabilities for executing tests and assembling test summaries, Jama minimizes a previously labor-intensive, manual process. It once took Plexus weeks to assemble test data. Now it takes a fraction of that time.

To enhance the customer experience, Plexus recently expanded access to Jama to its customers' engineers and managers. Before, its customers typically received a PDF to review project progress. Now they can check requirements, make comments and suggest new requirements directly in the platform. This speeds time to market and reduces development costs for its customers. One recent customer in particular was very interested in getting direct access to Jama once they saw what it could do.

"Our main performance measurement is the repeat business we receive from our customers," Strandberg says. "They don't come back if we're not meeting the schedule and project budget. And these are things that Jama helps us do. It makes us more efficient, leading to repeat business. Customers have stated that our mature process for managing requirements is a reason they select Plexus as a partner."

What's more, efficiency gains are tangible, which is a welcome addition for anyone who has ever tried to manage traceability with a Microsoft Excel spreadsheet. Keeping a spreadsheet up to date with the true state of requirements and test cases is a daunting task and easily susceptible to error.

"Customers come to Plexus because we have a track record of performance," Strandberg says. "A solution like Jama contributes to our ability to deliver solid products on time and within budget."

Planning future growth with Jama

To help manage its dynamic growth, Plexus expects to continue its reliance on Jama, which has the capacity to scale quickly with any organization. "We have confidence that as we continue to grow, the Jama solution will scale with our business," Strandberg says.

RESULTS:

- Dramatically reduced the time it takes to assemble test data

- Shortened time to market and improved execution efficiency

- Instilled customer confidence in the Plexus design process

"The Jama solution contributes to our ability to deliver solid products on time and within budget."

— Dave Strandberg,
Director of Engineering Solutions
Plexus

ABOUT PLEXUS

Plexus is the industry leader in servicing mid-to-low volume, higher complexity customer programs characterized by unique flexibility, technology, quality and regulatory requirements. Award-winning customer service is provided to over 140 branded product companies in the Networking/Communications, Healthcare/Life Sciences, Industrial/Commercial and Defense/Security/Aerospace market sectors. For more information, visit www.plexus.com.

ABOUT JAMA SOFTWARE

Jama Software is the product development platform for companies building complex, smart and connected products. The Jama solution enables enterprises to accelerate development time, mitigate risk, slash complexity and verify regulatory compliance. More than 600 product-centric organizations, including NASA, Thales and Caterpillar, use Jama Software to modernize their process for bringing complex products to market. For more information, visit www.jamasoftware.com.