



CUSTOMER STORY

Indra Park Air Chooses Jama Connect[®] Over IBM[®] DOORS[®] Next for Modern Visibility and Traceability

Leading Ground-to-Air Communications Systems Developer
Takes Off with Jama Connect

- Founded in 1966
- Acquired by Indra Sistemas, S.A. in October 2023
- Headquartered in Market Deeping, United Kingdom
- Develops ground-to-air communication and air traffic management (ATM) control systems for civil airports and military bases and ships

Indra Park Air is a leading designer and manufacturer of ground-to-air radio communications, monitoring, and automated radio test and calibration equipment for use in civil and military applications. The company has 60,000 radios installed in over 180 countries. In operation since 1966, the company was recently acquired by the global information technology and defense systems company Indra Sistemas, S.A.

Customer Story Overview

Previously, the Indra Park Air team had developed products using the original IBM® DOORS® 'Classic' software to manage requirements relating to performance, quality, and compliance with industry and military standards including ED-137 for VoIP system interoperability. Effective documentation of product requirements and changes during and after initial development was critical for product quality and regulatory compliance purposes as well as for conducting root cause analysis in the event of equipment failures in the field to determine whether they were caused by design-build errors or human errors.

Before starting development on a new project, the team decided to evaluate its tools and processes to see what changes if any were needed. They quickly realized that they had to replace IBM DOORS 'Classic' with a modern, intelligent, interactive yet easy to use solution for gathering and managing requirements with full traceability across the development lifecycle.

CHALLENGES

- Only a limited group were able to access product information
- Product status updates were inefficient and time-consuming
- Unable to handle shift to software-centric products requiring agile development

EVALUATION

- Intuitive easy-to-use interface for both frequent and infrequent users
- Modern data-centric reporting with live requirements traceability
- Efficient reviews and collaboration
- Integrated testing available to all
- Customizability through templates and APIs

OUTCOMES

- Quick and easy deployment
- Efficient requirements writing for new products
- Visibility into project changes

IBM DOORS 'Classic' had done what it was designed to do for older projects. However, the software was outdated, limited, and unfit to provide what the new projects required. "We used IBM DOORS as a requirements gathering tool for grabbing requirements and linking them together. We put requirements in and got requirements out like a document-based system. There was no intelligence behind it," says Colin Goodall, Embedded Software Engineer, Indra Park Air. Goodall would know as he has been with the company for 28 years and he led the initiative to replace DOORS 'Classic' with a modern requirements management solution.

Functioning as a document repository, IBM DOORS 'Classic' made it difficult to get information in and out. For the 100 people at Indra Park Air who weren't actively working on requirements, it was impossible to directly access DOORS 'Classic' because that would have required that everyone have a license. Even after exporting product requirements from DOORS to SharePoint, people still could not easily find or enter relevant information. "People would come, knock on the door, and ask 'How's the project going?' which was a distraction," says Goodall. "Field engineers and marketing people working with customers couldn't easily share the details of what our customers wanted in a format that we could import as requirements in DOORS."

The development team that had licenses to access DOORS 'Classic' still found it difficult to stay tuned into project status. "We were spending more and more time reviewing where we were with a project," says Goodall. "Every week we would come around a table to discuss the project, record minutes and then go away and postpone updating the DOORS documents. There was no quick way of going over all the last meeting's actions to see how well the project was going and what we could change to improve it."

The shift from hardware-centric to software-centric development provided the final reason for turning off DOORS 'Classic.' While previous generations of radios were predominantly hardware with a little bit of software control, the newer radios are much more software-centric with minimal hardware. DOORS 'Classic' supported the traditional waterfall approach (of working on one thing at a time) that had worked for hardware. That presented a disconnect with software development that needed to have teams be able to start working on new tasks before the previous work was finished.



Around twelve members of the development team were assigned to explore replacing DOORS 'Classic' with a modern, intelligent, interactive system featuring an intuitive user-interface and data-centric reporting capable of gathering and managing requirements with streamlined reviews and full traceability through design, documentation, testing, and eventually all the way down to code and hardware.

The team initially identified several software products to evaluate, including: IBM DOORS Next, PTC Codebeamer, ReqSuite, OpenText ALM Quality Center and Jama Connect®.

Most products were rejected after initial evaluations because they lacked the capabilities that the team required. This left Jama Connect and IBM DOORS Next.

The team ran 30-day trials for Jama Connect and IBM DOORS Next side-by-side. They devised a simple project involving a product that needed to be changed due to a new customer requirement. The team put in as much information as possible relating to high-level, low-level, and testing requirements.

To test how easy and intuitive each solution would be, the team tried doing as much as possible in the trials without reading manuals or getting help from Jama Software® or IBM representatives. Jama Connect came out significantly ahead of DOORS Next. "The trials showed us that Jama Connect is better able to meet the needs of the Indra Park Air team especially for people who won't be using it every day because of its more intuitive user interface, placement of things where you expect them to be, and online help," says Goodall.

Jama Connect's **Live Traceability™** enables anyone at any time to see the most up-to-date and complete upstream and downstream information about any requirement. "With Jama Connect, we were able to open a web browser, type something in, find it, and navigate up and down the hierarchy to see how it relates to other items. Dashboards gave a view of a project's status at a glance," says Goodall. "With DOORS Next, you first had to understand the way it structured its requirements before you could start navigating."

When technical questions came up about how to understand or do certain things in each solution, the evaluation team discovered that, for technical support, Jama Software topped IBM DOORS Next for a second time. “Jama Software’s responses were faster and clearer. With IBM, it was difficult trying to talk to anybody and when emailed, they sometimes misunderstood our question or occasionally they didn’t respond so we had to send additional emails which was quite frustrating,” says Goodall.

When it came to documentation, templates and APIs, the evaluation team found that they felt more confident that they would be able to do what they needed with Jama Connect. Jama Connect’s out-of-the-box templates were easy to understand and update and included DO-178 type templates for airborne systems that were already set up and would make life easier for the team.

“Jama Connect included REST API information and examples that were easy to understand,” says Goodall. “I felt that DOORS Next’s API was cryptic and outdated with fewer available API calls, as if IBM was telling us ‘Don’t try doing it yourself as we have an organization that will do it for you,’ which wasn’t what we wanted, although IBM’s approach may suit other customers that are not so proficient in coding.”

Reviews and testing were additional areas where Jama Connect eclipsed DOORS Next. Jama Connect’s Review Center for iterative, collaborative, reviewing of requirements and tests in real-time made it much quicker and easier to collaborate than DOORS Next. Jama Connect’s fully integrated **Test Management Center** for defining, organizing, and executing requirements-based test plans and test cases to ensure quality and compliance was simple and easy and would not require paid licenses for internal or external testers. Testing using DOORS Next required a separate product with additional paid licenses.

“Based on our product evaluation and interactions with customer support representatives from the two companies, we have greater confidence of achieving our goals with Jama Connect,” says Goodall.

The Indra Park Air team selected Jama Connect as their modern requirements management and traceability solution to meet both their current and future product development needs.

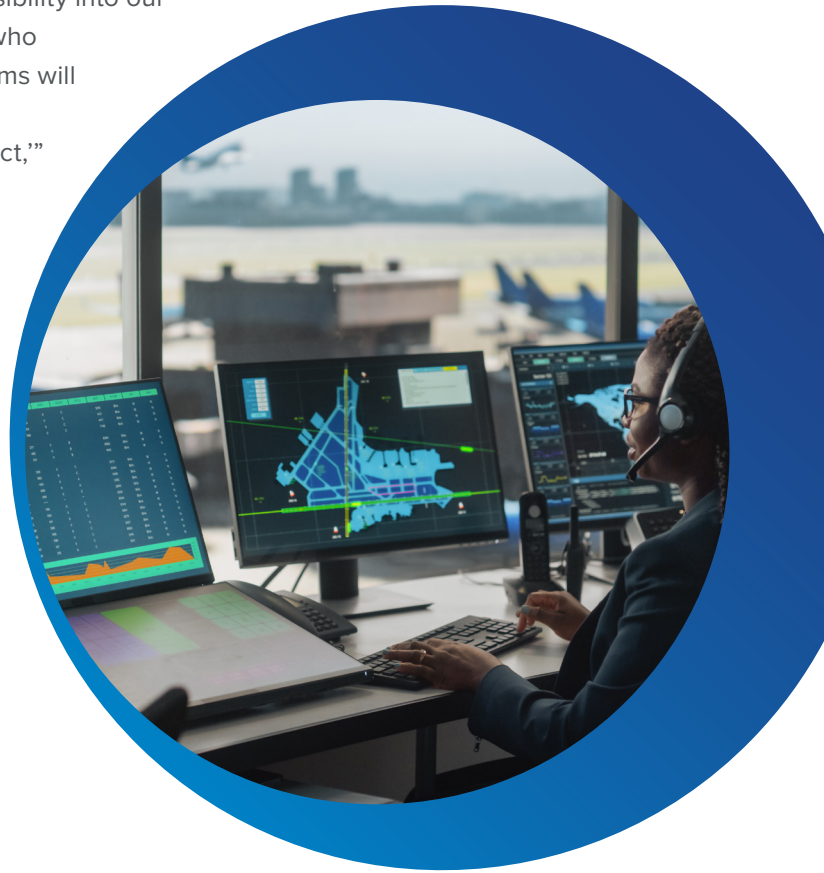


“IBM DOORS Next is an older, less supported product that won’t quite do what we want and we felt that’s unlikely going to change because IBM makes its money from many other products and could neglect developing DOORS,” says Goodall. “Jama Connect is a living product that will continue to get updates. If it doesn’t do something today that we want, it may do it next year because Jama Software is committed to listening to customers and investing in the product which is its bread and butter.”

COLIN GOODALL
EMBEDDED SOFTWARE ENGINEER
INDRA PARK AIR

Indra Park Air found that Jama Connect was quick and easy to set up and configure and worked as expected from the start as the modern solution they needed to replace DOORS 'Classic.' Within a short time, the development team was already putting requirements for their new products into Jama Connect and reviewing them.

"We are excited about how Jama Connect is providing visibility into our development process. We know if something changes, who changed it and why it changed. Our customer-facing teams will be able to say with confidence, 'Yes. I've asked for the change that you've requested, and it will be in the product,'" says Goodall.





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. To learn more, please visit us at jamasoftware.com.

