Speeding software innovation at Crane Aerospace & Electronics

IBM Rational software facilitates cross-team collaboration, reduces report times from days to hours

Overview

The need
To meet stringent compliance burdens and customer expectations placed on aerospace software application developers, Crane software engineers needed to increase the speed, quality and predictability of their development, testing and reporting processes.

The solution
As a centralized platform for application development, IBM® Rational® software enhances collaboration among development teams and automates application development, testing and reporting lifecycle.

The benefit
Crane reduces requirements testing report-times from days to hours and increases the efficiency and predictability of its application development processes.

Lives ride on the safety of the aircraft sensing, landing and hydraulics applications developed by Crane Aerospace and Electronics. "The stakes don't get higher or the regulatory environment more demanding," says Bernadette Saysette, the company's supervisor of engineering tools and process. "I have to make sure we're up to the task; that our engineers across the globe can collaborate efficiently throughout application development and testing and that all their work is documented and auditable by the FAA and customers."

High-stakes software development

"We are constantly adapting to customer needs," says Saysette. "In such a dynamic environment we have to be able to speed development, trace requirements and demonstrate regulatory compliance."

Issues relating to integrating Crane's embedded software with other aircraft systems amplify the challenge, adding complexity and raising traceability and reporting issues. Saysette, though, points out that such complexities don't inoculate Crane from day-to-day operational concerns. "While we're focused on safety we still have to make customer deadlines and worry about budgets."

Crane engineering teams worldwide work from a centralized IBM Rational platform, satisfying a 24x7 demand for development collaboration. "All engineers are working from a single point-of-truth and all are fully current on their project status," says Bernadette Saysette, engineering tools team supervisor for Crane.

Centralized developer collaboration

Crane has decades-long experience with IBM Rational DOORS® software, managing both the functional and integration requirements for its applications. The company deployed IBM Rational Team Concert™ software recently to provide its software engineers with a unified, collaborative global platform for application development and testing. IBM Rational Publishing Engine software helps the company maximize the value of Rational DOORS software by standardizing and automatically creating the Rational DOORS documentation and facilitating organization-wide access to it.

Dramatic efficiency gains

Crane software engineers anywhere in the world are exporting module-specific Rational DOORS requirement documents in Rational Publishing Engine software. "It's a centralized, shared platform, so there's consistency of tools and methods, making our software development and testing processes repeatable and much more efficient," says Saysette. Reporting times, in fact, have been cut from days to just hours. And with product lifetimes measured in decades, Saysette takes a long-term view toward utilizing the IBM Rational tools. "We need to maintain those programs, so the stability and quality of the tools are very important as is our relationship with IBM."

Solution components

Software
- IBM® Rational® DOORS®
- IBM Rational Publishing Engine
- IBM Rational Team Concert™
- IBM Rational Quality Manager

For more information

To learn more about IBM Rational software, please contact your IBM marketing representative or IBM Business Partner, or visit the following website:
ibm.com/software/rational

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