Crank Software Selects GrammaTech to Turn Up Software Quality and Security

An innovator in embedded user interfaces, Ottawa-based Crank Software wanted a proven way to advance the integrity of their products and prepare for the next phase of the company’s growth.

Crank Software, a division of AMETEK, produces innovative embedded graphical user interface (GUI) solutions. Using its flagship software, Storyboard™ Suite, R&D teams and UI Designers can quickly and collaboratively develop rich, animated user interfaces for resource-constrained embedded devices. With Storyboard Suite, UI designers with no programming experience have the ability to drag-and-drop their UI designs into an embedded application as it’s being written by engineers. This capability shortens development time and provides a collaborative process that leverages the core skills of each team member.

Producing Safety-Critical Software

Crank Software solutions are used in animated GPS systems, in-car graphical displays, and user interfaces on factory floors. These embedded software applications are safety-critical and very difficult to revise once in the field, so Crank Software must prioritize software quality and security. Naturally, Thomas Fletcher, Vice President of Research and Development, is constantly searching for tools and processes to advance the integrity of Crank’s products.

This proactive approach led them to evaluate static analysis solutions for use on their Storyboard Suite platform. They wanted a solution that would not simply prevent runtime errors, but increase the overall hygiene of the code. It was critical to find a solution that was technically sophisticated and also lean – one that didn’t require an ecosystem overhaul.

Adopting CodeSonar® for Static Analysis

GrammaTech got high marks early in the evaluation process by diving into the code first thing, allowing Crank Software engineers to gain a deep confidence in the advanced static analysis engine that underlies GrammaTech's analysis tool, CodeSonar. They were impressed with the results of their initial analysis. Says Fletcher, "We have an existing purpose-built development infrastructure, and we’re not interested in adopting a new one. We wanted an innovative, high-performance static analysis tool we could drop into our process and quickly see improvements from." As a result, GrammaTech won the deal against tough competition from other static analysis vendors.

Now, Crank is using GrammaTech in production, and things are working as anticipated. “No surprises – the analysis works well, the support team has been responsive and we continue to expand our analysis across more and more platforms,” Fletcher explains.

Quantifiable results have reinforced the wisdom of Crank Software’s choice. “Issues are
being caught and fixed very early in the coding process using automated CodeSonar source analysis. I look at these as problems I won’t have to hassle with in QA – and most critically, calls to customers I will never have to make,” says Fletcher.

Crank Software, always looking ahead, is now well positioned for the certifications it wants to achieve to drive greater adoption. Says Fletcher, “We wanted a comprehensive tool to push the quality and security of our software forward. And we got exactly what we aimed for.”

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– Thomas Fletcher
VP of R&D,
Crank Software

About Crank Software:
Crank Software is an innovator in embedded user interface (UI) solutions, reducing the time, costs, and headaches that notoriously come hand-in-hand with UI development by letting designers and engineers work side-by-side. Crank products manage the UI lifecycle from design to deployment. Teams can use the software to develop, prototype, and refine the UI until it’s perfect – both in function and in design – and then deploy the UI for the final product. With a shorter development time and a more collaborative process, products get to market first with a higher ROI and a remarkable UI that builds brand loyalty. Crank Software is a division of AMETEK.

About GrammaTech:
GrammaTech is a leading global provider of application security testing (AST) solutions used by the world’s most security conscious organizations to detect, measure, analyze and resolve vulnerabilities for software they develop or use. The company is also a trusted cybersecurity and artificial intelligence research partner for the nation’s civil, defense, and intelligence agencies. GrammaTech has corporate headquarters in Bethesda MD with a Research and Development Center in Ithaca NY.