

CASE STUDY



Crank Software Selects GrammaTech to Turn Up Software Quality and Security

Crank Software Inc. 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 can 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.

Crank Software wanted a high-performance static analysis tool to advance the integrity of their code and pave the way for future certification.

GrammaTech CodeSonar was the solution they were looking for, providing quick results, easy integration with their development process, and responsive support.

OTHER CUSTOMERS IN THE ELECTRONICS INDUSTRY INCLUDE:

Bosch Security Systems
Canon, Inc.
Fujitsu
Konica Minolta
LG Electronics
Olympus
Samsung
SanDisk
Sony Corporation
Vivante Corporation



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.

Given these requirements, Crank's Vice President of Research and Development, Thomas Fletcher, 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

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— Thomas Fletcher
VP of R&D,
Crank Software



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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's software engineers to gain a deep confidence in the advanced static analysis engine that underlies GrammaTech's analysis tool, CodeSonar. And they were impressed with the results of their initial analysis.

“We have an existing purpose-built development infrastructure, and we're not interested in adopting a new one,” Fletcher explained. “We wanted an innovative, high-performance static analysis tool we could drop into our process and quickly see improvements from.”

After meeting these requirements, 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 described.

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,” said 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.”