SELEX Increases Efficiency with Automated Defect Prevention

SELEX Sistemi Integrati is a FINMECCANICA SpA company that designs, implements, and markets large systems for Homeland Protection, aerial defense radar systems, battlefield management, naval defense, air and airport traffic management, and coastal and maritime surveillance. The corporation, which employs about 4,200 people, boasts 50 years of experience and clients across 150 countries.

Using the Parasoft Testing Platform, SELEX now eliminates software defects early in the SDLC. By reducing the time required for testing later in the process, this frees up resources for more rapidly addressing critical business demands while completing projects on time and on budget.

Increasing Efficiency by Eliminating Defects Early in the SDLC

“About twenty years ago, we began working with Parasoft and using their Insure++ memory error detection tool,” explains Daniele De Nicola, SELEX Product Software Verification and Validation Supervisor. “We were struggling with an elusive problem in a critical project. We needed a tool that could expose memory leaks at runtime—and we needed it fast, considering the severity of the problem and the importance of the project. After some research, we discovered that Parasoft was recognized as the most effective tool in its class. Our initial experiences with the tool confirmed this. A single day of support was all we needed to get started. From then on, our lives have never been the same!”

Strongly committed to optimizing internal processes, SELEX decided to focus on eliminating defects earlier in the SDLC. For this, they turned to Parasoft’s Development Testing Platform for C, C++, and Java applications. De Nicola explains that they were drawn to Parasoft’s static analysis because of “its accurate analysis and ease of use.” They were especially impressed by how flow analysis pointed them to critical runtime defects without requiring them to actually execute the code.

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During the proof of concept, Parasoft products were rapidly integrated into the organization’s projects, one at a time. The products demonstrated their value immediately. According to De Nicola, “This really increased the stability of our software components. There was a revolution in our way of developing that allowed us to gain precious time to focus elsewhere.”
Parasoft’s solution has been fully deployed across SELEX for many years now. In fact, SELEX’s software quality became so impressive that their sub-suppliers and partners started to wonder how the developers were able to such strides. After SELEX’s associates learned the secret to SELEX’s striking quality achievements, they began deploying Parasoft products in their own organizations.

**Real Results: Increased reliability with reduced development time, costs, and resources**
De Nicola is proud to share that by working with Parasoft, SELEX has significantly improved code stability, reuse, and maintainability (according to ISO 9127). It has also added a new level of automation and visibility to their verification process.

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Over the years, management has noted efficiency improvements in terms of development costs, time, and resources. In the future, the department plans to optimize their overall software development process to ensure that they are delivering quality software as consistently and efficiently as possible. They are already exploring how Parasoft Concerto can extend their existing solution in support of this goal.