



**CASE STUDY**

Leonardo Significantly Improves  
Software Quality With Modern  
Static Analysis Solution

## OVERVIEW

Leonardo designs, implements, and markets large systems for Homeland Protection, including 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.



## THE CHALLENGE

Strongly committed to optimizing internal processes, Leonardo 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. Leonardo had already been using Parasoft's memory error detection tool, Insure++, for twenty years.

Daniele De Nicola, a Product Software Verification and Validation Supervisor at Leonardo, 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.



## THE APPROACH

Leonardo turned to Parasoft's development testing platform for C, C++, and Java applications, effectively reducing the time required for testing later in the process. With this solution, they have freed up resources for more rapidly addressing critical business demands while completing projects on time and on budget.

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, increasing the stability of Leonardo's software components.

## THE RESULTS



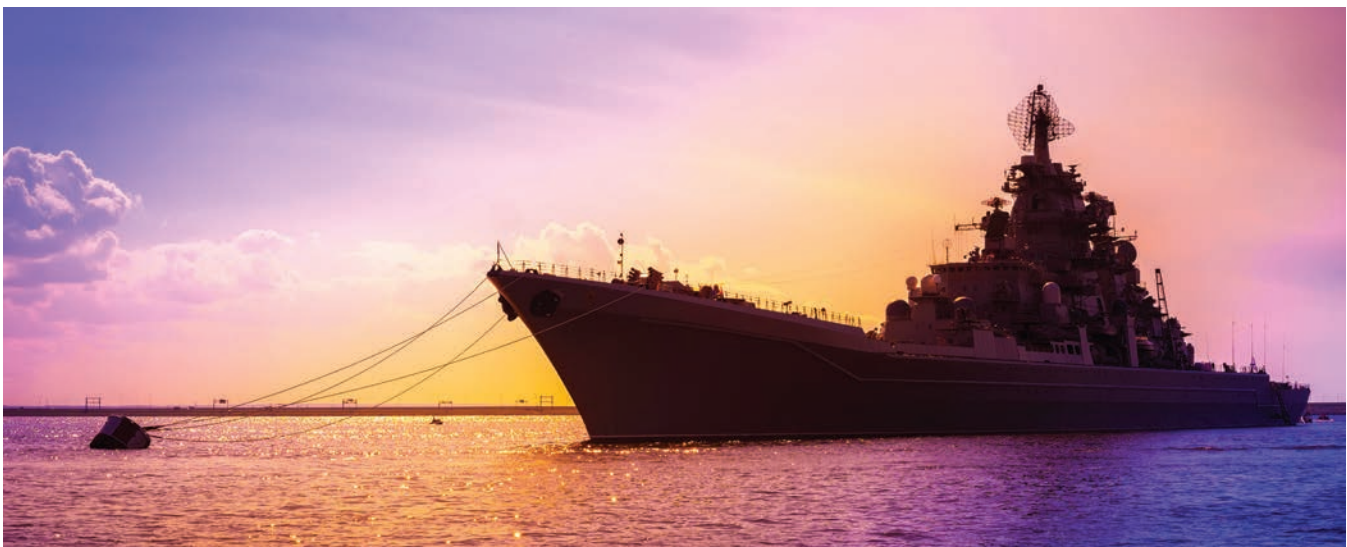
Parasoft has been fully deployed across Leonardo for many years now. In fact, their software quality became so impressive that their subsuppliers and partners started to wonder how they were doing it. After Leonardo's associates learned the secret to their striking quality achievements, they began deploying Parasoft products in their own organizations, as well.

Over the years, Leonardo 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 even further, to ensure that they are delivering quality software as consistently and efficiently as possible.

By working with Parasoft, Leonardo has significantly improved code stability, re-use, and maintainability. They have also added a new level of automation and visibility to their verification process.

"A single day of support was all we needed to get started," De Nicola states. "From then on, our lives have never been the same!"

*"There was a revolution in our way of developing that allowed us to gain precious time to focus elsewhere."*



## TAKE THE NEXT STEP

Discover an effective framework to use when selecting a static analysis solution. [Download the whitepaper.](#)

### ABOUT PARASOFT

[Parasoft](#) helps organizations continuously deliver quality software with its market-proven, integrated suite of automated software testing tools. Supporting the embedded, enterprise, and IoT markets, Parasoft's technologies reduce the time, effort, and cost of delivering secure, reliable, and compliant software by integrating everything from deep code analysis and unit testing to web UI and API testing, plus service virtualization and complete code coverage, into the delivery pipeline. Bringing all this together, Parasoft's award winning reporting and analytics dashboard delivers a centralized view of quality enabling organizations to deliver with confidence and succeed in today's most strategic ecosystems and development initiatives – security, safety-critical, Agile, DevOps, and continuous testing.