

Customer Success Story

Thales' naval combat systems and sensors serve five key sectors (aero-space, space, ground transportation, defense, and security). Thales helps its customers make the right decisions at the right time.

THE CHALLENGE

Thales has a heterogeneous and distributed test environment, which brings a challenge on how to automate regression tests. For their testers, it is difficult to have detailed knowledge of all internal test tools and radar applications.

THE SOLUTION

Thales introduced Parasoft SOAtest to orchestrate tests so it would be easy for test engineers to understand test cases. They can use all their existing test tools for controlling the radar applications and performing the verifications. Further, they can automate the tests and run them as often as they want.

Testing at Thales

Thales naval combat systems and sensors meet a wide range of needs for surface and anti-air warfare. These solutions perform surveillance, command, and combat functions, and support weapon systems from both US and European manufacturers.

The Thales product portfolio ranges from medium and long-range surveillance radars to multi-function radars with missile guidance, to complete integrated solutions that contain several radar systems, communication antennas, optronic sensors, IFF antenna, satellite dish etc. in one single structure and even one radar that has recently demonstrated its ballistic missile defence capabilities.

When it came time to address their testing challenges, Thales used an external company to investigate the possible solutions that were available in the market that would fit their needs. Parasoft SOAtest proved to be the best solution.

The radar department was looking for a solution that could provide the following:

- Test automation
- Tests for non-programmers that would be easy to implement
- Better involvement from domain engineers
- Connectivity with other web/soap-based applications
- Running of tests on multiple targets
- Reuse of tests

Using Parasoft SOAtest to Solve Testing Challenges

Having a heterogeneous and distributed test environment brought challenges to automating the regression tests. For example, test tools were implemented with Java and Matlab, but the radar applications were implemented in C and C++. There were Java-based unit tests that weren't suitable for non-programmers. Additionally, it was difficult to connect with web-soap based test applications.

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By using Parasoft, time between the delivery of a release and the feedback from the tests has significantly reduced.

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For Thales testers, it was very difficult to have detailed knowledge of all in-house test tools and radar applications, so they needed a test orchestrator tool to help, which would be able to abstract the technologies in the test cases and communicate with all these different tools.

By introducing SOAtest, Thales was able to abstract from the technologies in the test cases.

“SOAtest allows us to write the tests so it’s easy to understand by our test engineers. We can use all of our already-existing test tools for controlling radar applications and performing verifications, and the tool allows us to automate the tests and run them as often as we want. The results are then easy to display in the Jenkins environment.”

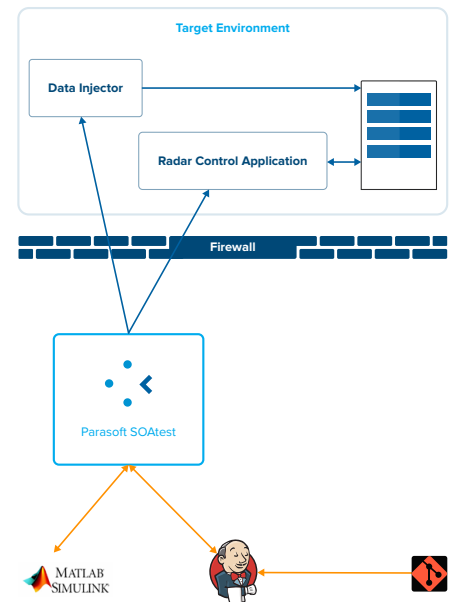
Test automation is triggered using a Jenkins server that contains jobs to:

1. Deploy the test tools and the radar applications.
2. Run the tests and collect the data.
3. Verify data and report the results.

By using SOAtest, time between the delivery of a release and the feedback from the tests has significantly reduced. This allows Thales to speed up deliveries to their internal test customers that test the final radar product.

Thales is now able to run more tests to improve the quality of their product, and it takes very little time to deploy this test setup to other radar products, to achieve continued benefit. Tests developed in SOAtest are reusable in other systems, saving time and money because writing tests takes a lot of time. As the tests are reused, the maturity of the tests continue to improve as well.

The setup at Thales is shown below:



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We now see a willingness from the domain architects, who have little knowledge of software to participate in the writing of regression tests, to improve the quality of our radar product. This factor is important to create a team spirit between the domain and software engineers.

- Ferenc Schopbarteld, Software Architect

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ABOUT PARASOFT

Parasoft helps organizations perfect today's highly-connected applications by automating time-consuming testing tasks and providing management with intelligent analytics necessary to focus on what matters. Parasoft's technologies reduce the time, effort, and cost of delivering secure, reliable, and compliant software, by integrating static and runtime analysis; unit, functional, and API testing; and service virtualization. With developer testing tools, manager reporting/analytics, and executive dashboarding, Parasoft supports software organizations with the innovative tools they need to successfully develop and deploy applications in the embedded, enterprise, and IoT markets, all while enabling today's most strategic development initiatives — agile, continuous testing, DevOps, and security.

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