Parasoft SOAtest

AUTOMATE CODELESS API TESTING

ACCELERATE DELIVERY WITH EFFICIENT TEST AUTOMATION

Today's distributed software environments mean a variety of APIs with every interface your software touches, from mobile to microservices. Each of these APIs has to be continuously tested and scaled and verified to ensure your software functions as it should. Parasoft SOAtest automates the continuous testing of the complex systems by creating codeless API test scenarios from UI action recordings.

SOAtest efficiently transforms your existing test artifacts into security and performance tests to increase reusability and reduce redundancy. Build a foundation of automated tests that can be executed as part of continuous integration and DevOps pipelines. SOAtest reduces test maintenance by proactively adjusting tests when APIs change.

Integrate SOAtest into your continuous delivery pipeline to ensure that your applications have an acceptable level of risk. Security and load/performance testing are often left to the end of the development cycle, but present the greatest risk to delayed releases. Integrate this testing earlier into your SDLC to reduce corporate risks associated with performance outages and security breaches.

DRIVE QUALITY WITH MODERN TESTING PRACTICES

Reduce the cost of developing high-quality software without sacrificing time-to-market.

CONTINUOUS TESTING

Automate the execution of API, performance, and security tests as part of your continuous delivery pipeline, leveraging CI infrastructure such as Jenkins, Bamboo, TeamCity, and Azure DevOps, to provide a faster feedback loop for test development and management.

AGILE

Accelerate the feedback process required in Agile methodology, by associating test cases with work items and integrating test results with your requirements and issue management systems, such as Jira, to continuously validate your level of risk.

SMART TEST GENERATION

Increase test productivity by simplifying initial test creation with artificial intelligence. Rapidly craft rich end-to-end test scenarios, regardless of the technology, and string test scenarios together with data to constantly validate your application.

MODERN TEST ENVIRONMENTS

Execute your tests and view results within the context of the test environment, while controlling the behavior of constrained dependencies to ensure predictability, leveraging service virtualization.

ENABLE CONTINUOUS TESTING

» Automate complex scenarios across multiple endpoints (services, databases, mobile, web UI, sensors, ESBs, mainframes) from a single intuitive user interface.

» Automatically generate codeless API tests that are robust, reusable, and easily shareable.

» Keep test assets in sync with evolving systems via automation.

» Leverage artificial intelligence to create powerful API test scenarios in less time than with other tools .

» Seamlessly integrate with load testing and service virtualization.

"With Parasoft SOAtest, we are able to kill two birds with one stone. You test the feature. When you are satisfied with result, you immediately generate a regression suite and you have your automation ready. You don't have to do the testing twice anymore. It's all done in one shot. That's a huge advantage... Parasoft helps us increase test coverage and increase the granularity of our testing. That helps us ensure our clients that they are always receiving a very high quality product."

CISCO

FORRESTER
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Continuous Functional Test Automation Suites

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customers' choice
2020 ™

TAKE CONTROL OF API TESTING

END-TO-END TESTING

From a single intuitive interface, Parasoft SOAtest automates end-to-end test scenarios across multiple layers and a variety of endpoints (such as mobile, REST APIs, SOAP services, databases, Web UIs, ESBs, or mainframes). SOAtest reduces the time it takes to create and execute data-driven test scenarios by providing a visual test-creation mechanism to handle common testing challenges like complex assertions, looping, data extraction, or data generation. Its Smart API Test Generator creates complete API test scenarios for you using artificial intelligence.

SECURITY & PENETRATION TESTING

Parasoft SOAtest helps teams prevent security vulnerabilities through API penetration testing and execution of complex authentication, encryption, and access control test scenarios. By leveraging already-existing functional tests for security scenarios, teams can approach security testing earlier, and address critical security defects before they are buried deep in the release.

RESPONSIVE TO CHANGES

As your API testing strategy scales, your libraries of test cases will grow, and when the APIs being tested change, your tests will need to be updated. Parasoft SOAtest's Change Advisor proactively scans API interfaces, looks for changes in the services, and then identifies how the test assets are affected by those changes and helps you easily update them.

Executing your complete test suite for every incremental build is very time consuming and becomes a bottleneck in your CI/CD pipeline. Within its smart test execution capabilities, Parasoft SOAtest uses test impact analysis to identify and execute only the tests necessary to validate the changes between builds so you can get quicker feedback from the CI/CD pipeline.

EXTENSIVE INTEROPERABILITY

Whether you're working with APIs, microservices, or web services, have confidence that you can thoroughly test any interface. Parasoft SOAtest supports more than 120 industry protocols and message types.

Easily identify changes in test cases with a visual color coded comparison.
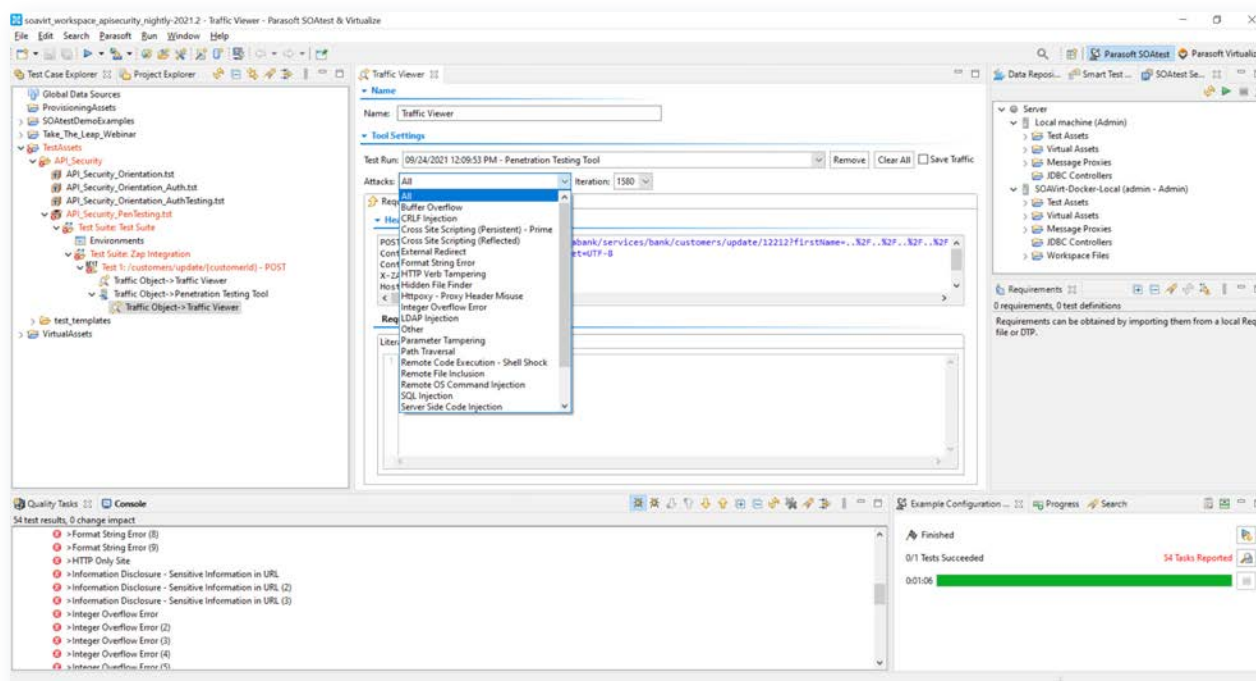
Move API security testing earlier in the development process. Perform penetration testing with Parasoft SOAtest's integration with OWASP ZAP for seamless dynamic application security testing (DAST).

PERFORM API SECURITY TESTING WITH PARASOFT SOATEST + DAST

APIs are the building blocks of modern applications. If the APIs aren't secure, the system isn't secure. However, having a consistent API testing strategy that spans from development through test to the AppSec team can be challenging. Parasoft SOAtest extends its API testing platform with a seamless integration of dynamic application security testing (DAST) to perform penetration testing as part of the development workflow.

INTEGRATE PENETRATION TESTING INTO YOUR API TESTING STRATEGY

Penetration testing is critical to uncover security holes in your application. Parasoft SOAtest helps teams prevent security vulnerabilities through API penetration testing and execution of complex authentication, encryption, and access control test scenarios. Approach security testing earlier and address critical security defects before they are buried deep in the release.

BRING YOUR OWN POLICY (BYOP)

With SOAtest, you can use your existing API functional tests and OWASP ZAP tests to run security penetration tests for your automated CI process. Import custom OWASP ZAP scan policies into SOAtest and pair them with existing API testing scenarios to automate API security testing as part of continuous monitoring activities. This provides complete visibility into emerging threats that can be leveraged back into developer functional testing.

EASILY DEFINE YOUR ATTACK VECTORS

There are specific areas of your application that you want to attack but they are buried under multiple web or API steps.

With SOAtest, you can define the steps needed to get your application in the state where it could be penetrated and then launch your attack.

RUN SECURITY TESTS AS PART OF CONTINUOUS INTEGRATION

Security tests can be run as part of an automated CI process through the command line or through integration with CI systems like Jenkins, Azure DevOps, TeamCity, Bamboo, and others. This automation allows you to discover vulnerabilities as soon as they are injected into the application—otherwise, they may not be found until much later when they're more expensive to fix.

## VIEW RESULTS AND REPORTS FOR PEN TESTING

Parasoft collects coverage data as penetration tests are run and aggregates that data with the overall code and test coverage data collected by all testing practices, such as unit and functional tests. Security test results are reported through Parasoft DTP to make them visible to stakeholders in the same ways that functional test data are displayed and reviewed. This complete view of testing is essential, especially in Agile, for stakeholders to make informed decisions that will impact the business.
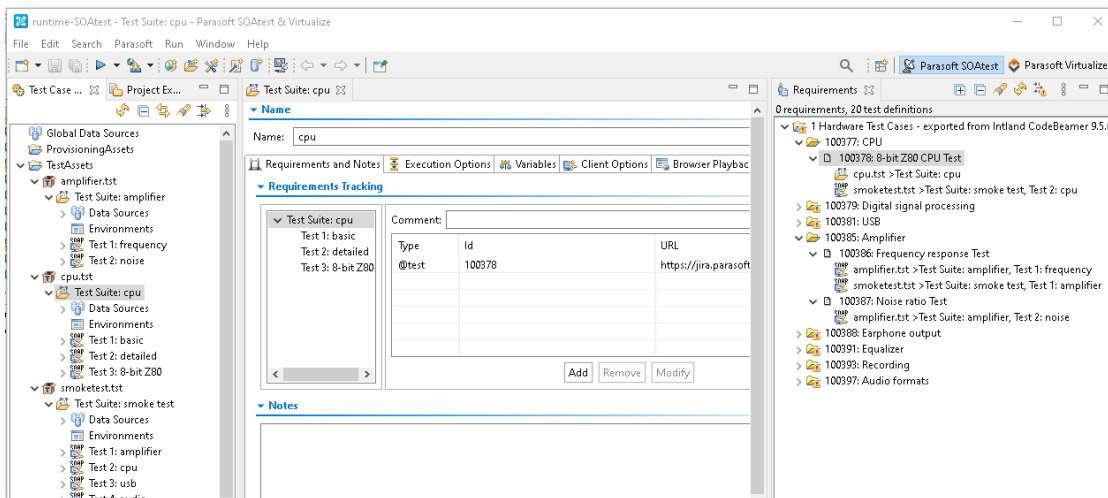
Associate your build requirements with your API test cases to view test coverage and enable smart test execution.

TRACEABILITY

Gain insights into your application's test coverage with traceability workflows. Import requirements from the build system to map the associated test cases to those requirements. With user stories correlated to test cases, which are also aligned to the code, Parasoft SOAtest identifies the tests to run when changes are made to the code and reports on what requirements are impacted.
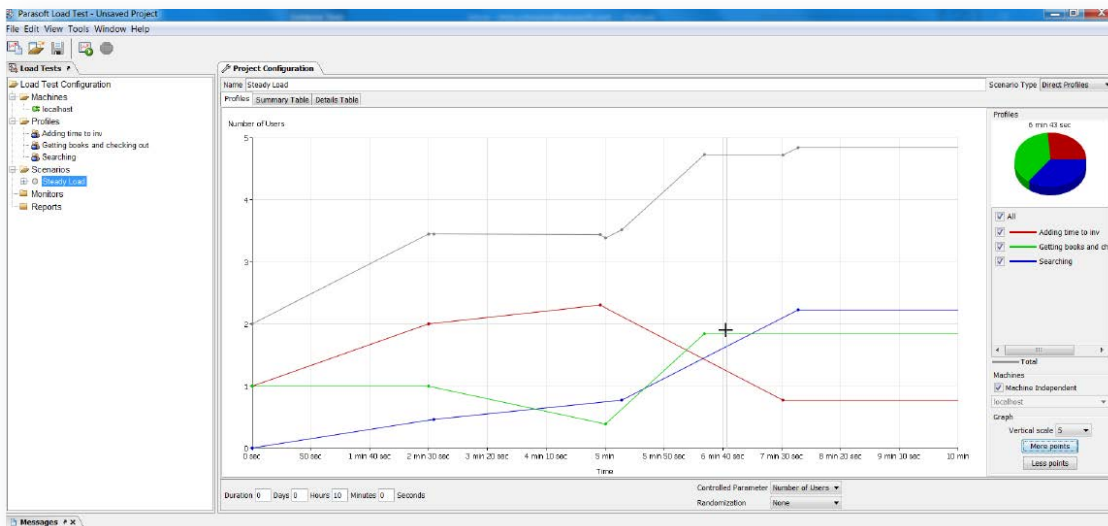
Reuse your Parasoft SOAtest functional tests to verify application performance and functionality under heavy load.

LOAD AND PERFORMANCE TESTING

Parasoft Load Test takes the tests from SOAtest and runs them under load to validate your application's performance under stress. It verifies that your services meet specific quality-of-service metrics and shows you where performance bottlenecks exist. Load and performance testing can be fully automated and run continuously, enabling constant validation and providing immediate feedback on the impact of change against SLAs.

REACH QUALITY GOALS

SOAtest can help your team improve API test quality and speed up software delivery. Request a demo today.

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