ORACLE APPLICATION TESTING SUITE - TESTING ACCELERATORS FOR WEB SERVICES

ORACLE ENTERPRISE MANAGER 11g

FEATURES

- Automates testing of SOA-based applications directly at the Web Services interface level
- Enables both automated functional testing and load testing of Web Service interfaces
- Provides test cases to validate content of Web Services XML responses
- Enables parameterization of Web services scripts for data-driven testing
- Simulates Web Service loads of hundreds to tens of thousands of concurrent users while minimizing hardware requirements
- Gathers critical infrastructure performance metrics to identify bottlenecks under load
- Provides an intuitive Web-based console to configure and run load tests and share real-time results with distributed users

The Oracle Application Testing Suite Testing Accelerators for Web Services allow users to test the quality and performance of their service-oriented architecture based applications directly at the Web Service interface level. The Functional Testing Accelerator for Web Services extends Oracle Functional Testing to enable automated functional and regression testing of Web Services. The Load Testing Accelerator for Web Services extends Oracle Load Testing to enable load and performance testing of Web Services. The Testing Accelerators for Web Services are components of Oracle Application Testing Suite, the centerpiece of the Oracle Enterprise Manager solution for comprehensive testing of packaged, Web and service-oriented architecture–based applications.

Ensuring Quality of Service-Oriented Architecture Applications

Companies are increasingly moving to services-oriented architectures (SOAs) and deploying Web services within and across their IT infrastructure. These component-based architectures enable powerful applications that exchange information in a simple, standardized manner and enable integration with both internal and external application components. However, the success of these SOA-based application deployments is impacted by the quality and performance of the various applications and components with which they interface.

Traditional testing solutions focus on testing applications at the user interface level. For SOA-based applications however, the user interface may not be available for testing until late in the development cycle. And for some applications or critical interfaces there may not be a traditional user interface at all to test against. The Oracle Application Testing Suite Accelerators for Web Services enable automated functional testing and load testing of service-oriented architecture based applications directly at the Web Service interface level, which enables testing earlier in the development cycle and without requiring a user interface to test against.

Functional Testing Accelerator for Web Services

The Functional Testing Accelerator for Web Services extends Oracle Functional Testing to provide a powerful and easy-to-use solution to automate functional and regression testing of Web Services. The OpenScript scripting platform in Oracle Functional Testing allows users to create Web Services test scripts that automate Web Service SOAP requests directly without requiring a user interface to test

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against. These scripts can combine multiple SOAP requests in a single test script which users can execute to validate their business transaction. OpenScript combines an intuitive graphical scripting interface to quickly create complex test scripts and a powerful Java IDE that enables power users the flexibility to extend scripts programmatically.

The OpenScript scripting platform in Oracle Functional Testing allows users to parse Web Service Definition Language (WSDL) files and store the parsed Web Services methods in a WSDL Manager. Users can then easily create Web Services test scripts by selecting which methods they want to call from this store of parsed Web Service method requests or by specifying the requests manually and can also specify the data inputs for those Web Service requests. Users can then add test cases to validate specific Web Service responses and parameterize their script inputs to perform data-driven testing. Response values from one Web Service SOAP request can also be parsed and used as input for subsequent requests using script variables and Web Service requests can be combined with Web application-level HTTP requests in the same test script.

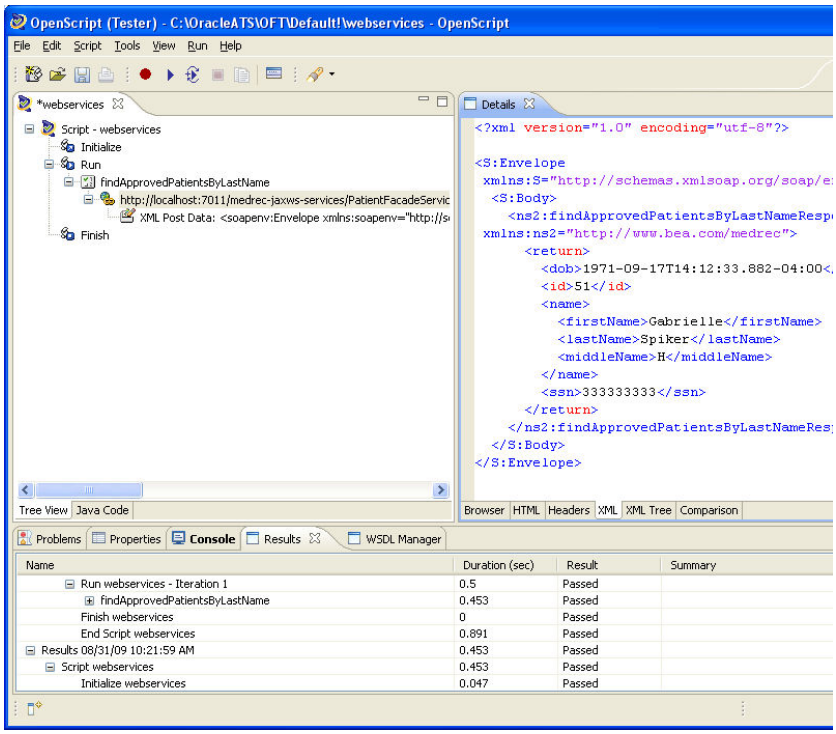

Figure1. Oracle Functional Testing automates Web Services functional and regression testing

Load Testing Accelerator for Web Services

The Load Testing Accelerator for Web Services extends Oracle Load Testing to enable automated load and performance testing of Web Services based applications. With Oracle Load Testing you can simulate thousands of virtual users performing Web Services transactions simultaneously to measure the effect of user load on

application performance. Users can leverage the same Web Services functional test scripts created in Oracle Functional Testing's OpenScript scripting platform for load testing. OpenScript automates both HTTP and Web Services SOAP/HTTP protocol requests to generate highly scalable load test scripts.

Oracle Load Testing provides a Web-based console that allows you to configure and run one or multiple scripts across thousands of virtual users to assess performance. Users can specify a number of run time parameters such as the amount of think time each user spends per request and the connection speed to emulate. During the load test, Oracle Load Testing measures end-user response times as well as the performance of the underlying application infrastructure through its integrated ServerStats infrastructure monitoring module.

Comprehensive Testing for Web Services

Oracle Application Testing Suite provides a comprehensive testing solution for Web Services. With Oracle Functional Testing and the Functional Testing Accelerator for Web Services, users can effectively introduce automation into their application test process for SOA-based applications. With Oracle Load Testing and the Load Testing Accelerator for Web Services, users can leverage a powerful solution for ensuring application performance at the Web Service layer. And with Oracle Test Manager users can effectively document and manage their test process from a central location and report on application readiness.

Oracle Application Testing Suite provides a powerful integrated scripting platform for automated functional & regression testing and load testing. Oracle Functional Testing's OpenScript integrated scripting interface provides a unique combination of ease-of-use and flexibility through its intuitive graphical scripting interface and powerful Java IDE for extending scripts at the code-level. Oracle Functional Testing also provides custom capabilities for testing SOA and Oracle packaged applications through its integrated testing accelerators. Oracle Load Testing provides a fully Web-based user interface for configuring and running load tests and an integrated ServerStats module for monitoring application infrastructure during a load test to identify bottlenecks. Oracle Load Testing also enables multi-user collaboration by allowing testers to view and share real-time results during load test execution through their browser. With Oracle Application Testing Suite users can leverage a comprehensive, integrated solution for automated functional and regression testing, load testing and test process management.

Contact Us

For more information about Oracle Application Testing Accelerators for Web Services and Oracle Enterprise Manager please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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