Rational testing solutions for Software AG

Automate lifecycle testing of Software AG integration projects

Highlights

- Enable SOA governance with CentraSite policies and certification suites
- Import CentraSite service definitions to accelerate test development
- Capture and modify webMethods Broker documents to test different processing scenarios
- Simulate webMethods Integration Server services to remove dependencies that can affect your test cycle
- Interact with Integration Server publishers and subscribers to create end-to-end test scenarios

A growing number of organizations rely on SOA, BPM and integration technologies to connect a wide range of enterprise systems and applications into a seamless set of business processes. The cost of poor software quality can be extremely high for these mission-critical services. But as the scope of these business processes increases, your quality teams face greater challenges due to the broader scope and complexity of testing this software. How can your software quality process adapt to this new world of complex integrated systems? How can you ensure proper SOA governance and the proper balance between the speed of quality and time to market?

IBM Rational® test automation solutions for Software AG are designed to address the software quality challenges of your SOA environment at all stages of the development lifecycle. With support for all the major Software AG components—Integration Broker (IB), Integration Server (IS), BPMS, Trading Networks, EntireX, ApplinX, Composite Application Framework (CAF) and CentraSite—Rational delivers test automation for all areas of your integration project.

SOA Governance

A sound SOA re-use strategy will ensure that the state of quality of a business service is known and confirmed as the service changes over time. By integrating Rational with CentraSite, projects can create certification test suites that confirm the service is ready for publishing and use. The last execution and status of the test suite is visible when examining the service asset in the CentraSite catalogue, providing the latest quality status for anyone intending to use the service. "Out-of-the box" policies for CentraSite ensure the test suites are executed before a lifecycle change is allowed for the service.

Emulating missing dependencies for the purposes of testing has been called *service virtualization* by some industry analysts but in acknowledgment of the fact these emulations can use non-service based approaches, we prefer the term *test virtualization*. In test virtualization, a real component is replaced by a *virtual component*, sometimes called a *stub*. Stubs can be created to eliminate test dependencies for a registered CentraSite service. The collection of test suites and stubs can be published in CentraSite. Other testers can then download these tests and stubs for use in their own project, ensuring a consistent view of quality across all service consumers.

webMethods Integration Server and Message Broker

Interact with Integration Server publishers and subscribers to trigger end-to-end service tests or track the invocation of services as a message flows through the process, and validate service response. With the IData formatter, you can add, edit or remove fields from the message to implement a variety of test scenarios. Similarly, you can subscribe to a Message Broker event to capture a broker document, modify its content and publish the document back to broker to initiate downstream processing.

Lifecycle testing

The integration with webMethods BPMS, Integration Server and Broker simplifies test creation and provides visibility into the process automation layer to provide validation, error, coverage and performance information. A webMethods coverage report provides metrics about the effectiveness of the testing, giving you the confidence to roll into production quicker than ever before.

You can reuse your functional integration tests to create performance test scenarios. Combine your tests in different ways to simulate real-world transaction workloads to assess the scalability of your integrated infrastructure before deploying to production. And with service virtualization, you can remove test dependencies and test for performance earlier in the development cycle. Virtualized services will override webMethods Integration Server services without the need to place code in existing flow services removing the risk of costly test errors.

IBM Rational testing solutions

IBM Rational testing solutions offer the most complete set of options for testing complex application environments. It consists of three offerings:

- *IBM Rational Test Workbench* is a desktop environment providing test authoring, playback and reporting for functional, integration and performance testing. It integrates with Rational Quality Manager for lifecycle traceability and test execution.
- *IBM Rational Performance Test Server* deploys service and application load agents that validate the scalability of your application infrastructure.
- *IBM Rational Test Virtualization Server* creates shares and deploys virtualized application components and services. It allows you to share and manage your virtualized application environments through a web-based test control panel.

Better, faster, simpler testing

Rational test automation solutions help your SOA, BPM and other integration projects go into production faster to help meet business expectations. You deploy services more confidently, knowing they have been fully tested at every stage and that all test results are thoroughly documented.

Use test virtualization to enable testing earlier in the lifecycle, accelerating application delivery and reducing the risk of costly late-stage project integration. Test virtualization also enables the delivery of cost-effective, automated integration test environments to help you contain the rising costs of quality, driven by these complex, composite applications. Transform test data into valuable insight with reporting that lets you more thoroughly assess the state of quality.

Why IBM?

Rational test automation solutions are easier to adopt, deploy and use. IBM offers one of the most complete solutions for creating virtual services and supporting industry formats. It integrates with the industry-leading IBM Collaborative Lifecycle Management (CLM) solution, providing lifecycle traceability and alignment with business requirements and objectives. And because it is from IBM, you get the extra value of flexible licensing as well as a strong—and growing—partner base including IBM Global Business Services and many system integrators.

For more information

To learn more about IBM Rational software quality and testing solutions, please contact your IBM sales representative or IBM Business Partner, or visit:
ibm.com/software/rational/offerings/quality

See also:

- **IBM Rational Test Workbench**
  ibm.com/software/rational/products/rtw
- **IBM Rational Performance Test Server**
  ibm.com/software/rational/products/rpts
- **IBM Rational Test Virtualization Server**
  ibm.com/software/rational/products/rtvs

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IBM Corporation
Software Group
Route 100
Somers, NY 10589

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