

## IBM Rational Systems Tester software.

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### Highlights

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- ***IBM Rational Systems Tester software offers an automated, standardized testing solution that helps enable a faster development process and boosts quality and productivity throughout the testing lifecycle.***
- ***The solution enables an integrated test authoring, debugging and execution environment that gives testers the freedom to focus on business-critical functionality.***
- ***Automated test functions and packaged test cases help boost productivity and collaboration within the testing and development teams.***
- ***Testers can use a powerful, standard test language to perform message-and-procedure-based system and integration testing for various industries over multiple test phases.***

### **Automate your mission-critical testing**

No manufacturer, regardless of whether it builds cellular phones or automobiles, wants to face a product recall. No service provider wants to experience outages that create downtime for its users. These nightmare scenarios are examples of why testing is mission critical—especially as systems grow in complexity and ubiquity. Although development environments have improved developer productivity, systems and integration test products haven't kept pace. As a result, testing can take a significant part of the entire system's development process. IBM® Rational® Systems Tester software is an automated solution that can aid in reducing the cost of testing, while helping to increase productivity and quality across the testing lifecycle.

### **Perform standards-based testing with a product that is anything but standard**

With off-the-shelf test automation, the Rational Systems Tester solution is designed to dramatically increase productivity by virtually eliminating manual, error-prone processes. Tests can be quickly and repeatedly executed, enabling you to test early and often to help maximize quality and reduce cost. Rational Systems Tester software supports the testing lifecycle from test design to development, analysis, execution and debugging—from a single desktop with a shared, familiar interface similar to that of the Microsoft® Windows® operating system.

### **Increase your focus on testing**

The IBM Rational Systems Tester solution offers an integrated test authoring, debugging and execution environment. Users can concentrate on domain-specific testing instead of implementation details. Testers can leverage broad test abstraction and portability so that tests can be written independently of the equipment on which they run. Test cases developed using Rational Systems Tester software can be executed on multiple, diverse test-execution platforms,

while being monitored from a single desktop. Proprietary, one-of-a-kind, in-house solutions can be avoided because all test execution platforms may be supported with standard, off-the-shelf tests. With less need for customization, testers can focus more quickly on business-critical functionality. Tests can even be executed, monitored and controlled on the target device, allowing teams to perform comprehensive evaluations of implementation success.

### Help boost productivity

Rational Systems Tester software's test automation, packaged test cases and straightforward user interface help increase the test team's productivity by eliminating manual, nonrepeatable and ad hoc processes. Tests can be repeated early and often, which helps reduce development costs and significantly improve the quality of the developed service or product. Distributed testing support extends these benefits to loosely coupled applications, including those found in service-oriented architectures (SOA); support for both file- and task-based configuration management systems promotes safe and accurate team-wide collaboration.

### Help reduce test errors

Rational Systems Tester uses a dedicated test language that supports testing concepts such as test abstraction, separated error handling, automatic value-matching and more. Its powerful test case analysis capability finds errors in test cases before they're run—helping to eliminate the frustration and wasted resources of false alarms arising from faulty test cases.

### How it works

The Tester solution extends the benefits of a rigorous, standardized test language to include the automation and relative ease of use needed to improve the quality of today's complex systems. Testing and test control notation (TTCN-3) is a European Telecommunications Standards Institute (ETSI) multipurpose test language—similar to a programming language—with specific features that support automated testing. TTCN-3 contains specific rules for computing a test case's overall verdict. It provides various ways to express how to match data received from a system under test (SUT) and which parts of the SUT data are relevant to that match. Rational Systems Tester software performs message- and procedure-based systems and integration testing on data or electronic interfaces. It applies to various testing phases, including software module, functional and integration testing. The Rational Systems Tester solution can be used to test either software interface protocols (such as TCP/IP or IPv6) or hardware interfaces (such as RS232).

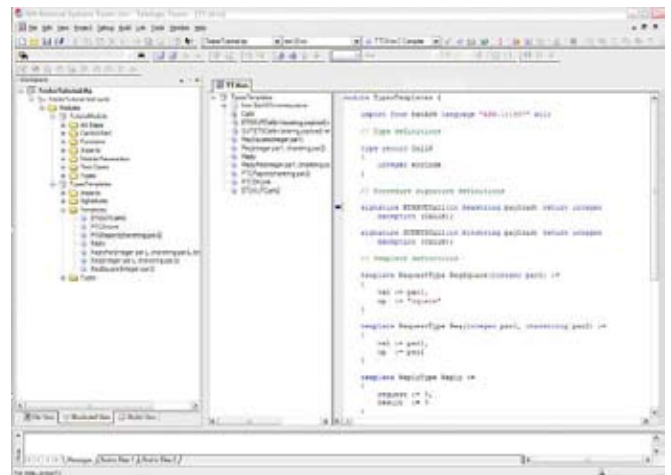


Figure 1: BM Rational Systems Tester helps eliminate guesswork by visually debugging and tracing test elements.

Tests developed with Rational Systems Tester software can be embedded into almost any target operating system (Windows, UNIX®, Linux® and a proprietary realtime operating system [RTOS]), while remaining under control of the Rational Systems Tester environment. With its combined test-development and test-execution environment, built-in debugging and support for distributed testing, Rational Systems Tester software is a comprehensive testing solution that brings automated testing up to the level of today's leading software development tools.

**System requirements**

Rational Systems Tester software runs on multiple host environments, including Microsoft Windows 2000 and Windows XP, Red Hat Enterprise Linux, and Sun Solaris operating systems.

Feature	Functional benefit
Powerful: Facilitates testing of complex and distributed applications through its prebuilt test execution framework	Accelerates test development with packaged, editable test cases and built-in test debugging
Formal: Provides a single, precise meaning for any piece of test code on any application  Domain-specificity: Includes native support for communications testing of 3G, post-3G and other advanced protocol standards	Supports compliance by running tests against published standards
Easy to learn: Looks and functions much like the Java™ or Perl procedural programming languages	Simplifies adoption and training with an industry-standard solution
Flexible: Supports easy, hands-on editing and full debugging of test cases	Helps reduce the costs of testing and accelerate the delivery of high-quality products

**For more information**

For more information about IBM Rational Tester, contact your IBM representative or IBM Business Partner, or visit: [ibm.com/software/rational](http://ibm.com/software/rational)



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