Spirent **iTest**

A CLEAR Solution to Create & Execute Test Cases

SPIRENT

The test lifecycle challenge:

As new technologies evolve, test teams struggle to keep pace with rapid, agile product development processes that require continuous test development and execution throughout the life cycle. The separation between development and QA is blurred by test driven development and continuous test best practices. "Testers" of all types struggle to meet the demand to execute existing tests and create new tests required to achieve and ensure the high quality of new features demanded by customers.

Benefits of Spirent iTest

- Reduce test cycles and increase coverage
- Assure ROI, low total cost of ownership, and future-proof automation success
- Maximize productivity and encourage testing best practices at key levels: process, asset sharing, and communication
- Reduce time-consuming and error-prone manual tasks for system and device testing
- Enable all team members to contribute to automation objectives, regardless of skill level
- Increase resource utilization by providing emulation technology to enable offline test development
- Improve collaboration and standardized communication between local and global teams

Spirent iTest is an integrated test authoring and execution tool built for testers, developers, and automation teams. Its interactive approach to rapidly developing, automating, and easily maintaining test cases makes it the ideal test solution for agile development and continuous integration processes. Designed to address the needs of manual testers, automation specialists, and managers alike, iTest improves the productivity of the entire test organization.

Realize more...

Profitability

- Shorter, but more comprehensive test cycles
- Increased utilization of investments
- Defects detected earlier in the development cycle

Customer satisfaction

- Fewer customer reported defects
- More customer feature requests
- Reproduce customer issues faster

Productivity

- Automate repetitive tasks
- Adopt testing best practices
- Expand the pool of test developers

Visibility

- Increase insight into test progress
- Identify resource bottlenecks
- Determine collaboration level

Per test creation costs reduced by up to 40%*

40%

* Benefits based on the Spirent iTest BLADE Case study, available at:
www.spirent.com/Case-Sudies/Broadband/iTest_blade_case_study

Spirent iTest

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Spirent iTest—realize more efficiencies in test case creation & execution

Spirent iTest is an interactive test development environment that seamlessly interacts with a wide range of devices, API's, languages and environments. The user experience provides programmers and non-programmers a simple way to rapidly create test cases for a wide variety of uses. iTest is tightly integrated with Spirent's Velocity solution to further extend and empower the automation capabilities of iTest, including the management and automation of the setup and cleanup of the testbed itself. With the help of Spirent's experienced Solution Architects and Professional Services, Spirent works closely with teams to deliver a complete solution that ensures success.
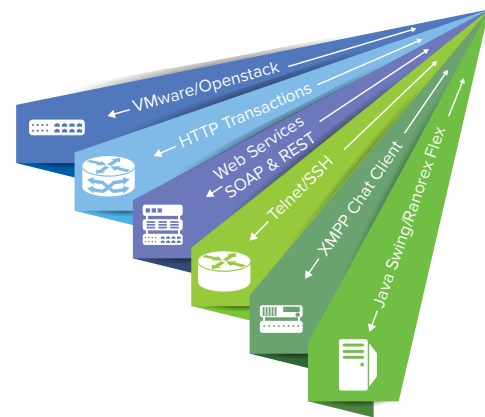
iTest—sessions

iTest sessions provide a simple way to interact with almost any device, software API, physical or virtual environment. From command line, to Web interfaces, creating a sophisticated test script can be as simple as opening the session and interacting with the DUT just like during manual testing. The interactions along with the responses are automatically captured and stored for later use. Each session profile can be inherited from another session profile, making test maintenance extremely easy.

- OpenStack
- VMware VSphere®
- Selenium Web
- Telnet / SSH / Serial Port / Command prompt
- Database Client
- File System
- Web Services (SOAP & REST)
- Syslog
- Tcl Shell
- Wireshark
- XMPP Chat Client
- IBM Rational Functional
- SNMP
- More . . .

iTest—topology management

iTest's graphical topology designer allows the user to draw the test bed in a Visio®-like diagram, then reference the devices in the topology when writing the test. The diagram represents the reference topology that the test uses, and the actual devices are assigned at the time of execution to create a totally portable test. The topology designer is tightly integrated with Spirent's Velocity Testbed orchestration and test case management system, which is capable of creating both physical and virtual test beds. When the device under test is unavailable during test development, DUT emulation mode allows the tester to work in parallel with the developer.

iTest—integration

iTest integrates with almost any system including most continuous integration solutions and agile development processes. iTest has proven integration with a variety of application lifecycle management systems.

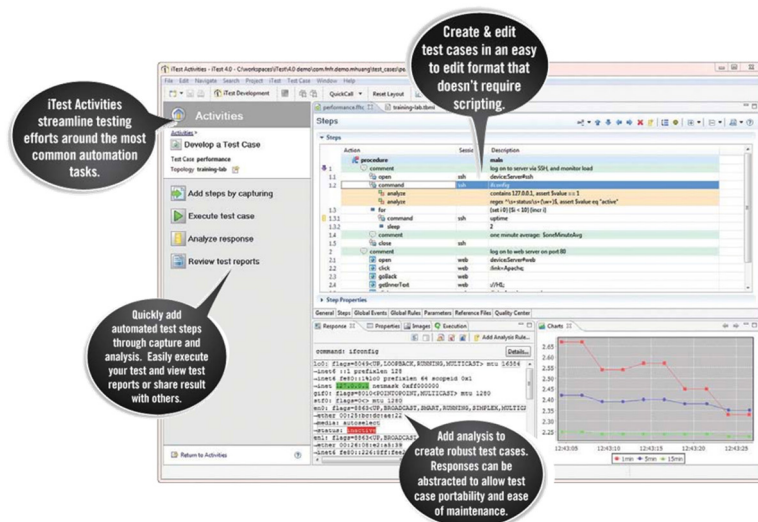|	
Jenkins	Jenkins
hp	HP ALM® (Quality Center)
IBM	IBM Rational Quality Manager (RQM) Integration®
ZEPHYR	Zephyr® & Zephyr Enterprise®

iTest–features

iTest creates simple tests quickly and sophisticated tests easily. Each test includes pass/fail criteria so that determining if the test succeeded is as simple as checking the results status. iTest even notifies the tester once the script is done. iTest promotes testing best practices across the team through a variety of features, including:

- Project & Session Creation Wizards
- SmartBlocks & QuickCalls
- Test Modularization
- Test bed Abstraction
- Intelligent Response Map Mapper & Parser
- Standardized Test Reports
- Multi-threaded test execution
- Cross-platform Support

iTest–tool support

iTest integrates with almost any test tool. iTest has a wide range of integrated test tools from Spirent and third-party vendors. iTest is the only test automation solution that supports the network test industry's most prolific standards body, NTAF.

- Spirent Avalanche
- Spirent Landslide
- Spirent TestCenter
- Ixia IxExplorer
- Ixia IxNetwork
- Ixia IxLoad
- Ixia IxN2X

iTest improves the productivity of the entire test organization

- Rapidly author complex, heterogeneous and automated system tests
- Accelerate testing throughout the QA organization by reducing manual tasks
- Adopt product development best practices through continuous integration of the test process tools with Agile product development processes and tools
- Enable all QA team members to effectively contribute to automation testing, regardless of skill level
- Accelerate test results analysis by easily implementing and automating pass/fail criteria within tests
- Use emulation technology to cut time to market and enable offline testing
- Optimize collaboration across teams and between companies with a standardized communication platform
- Leverage existing libraries and assets for immediate ramp up
- Streamline testing by integrating automated processes with existing testing infrastructures

Improve productivity, saving $500,000 in resources and equipment*

500K

Spirent iTest transforms network test automation with its vendor-agnostic object-oriented architecture with powerful automation features delivering a new paradigm in testing efficiency and productivity. Orchestrating personnel testing resources, iTest maximizes automation reuse and empowers non-programmers to drive the creation and execution of test automation campaigns.

* Benefits based on the Spirent iTest BLADE Case study, available at: www.spirent.com/Case-Studies/Broadband/iTest_blade_case_study

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Spirent expertise

Spirent solutions support staff comprises an accomplished team of certified networking and testing automation professionals. Years of training with hands on experience testing and troubleshooting diverse systems, enrich their capabilities.

A founding member of Network Test Automation Forum (NTAF), the standards body for the test and lab automation industry, Spirent CLEAR automation solutions are delivered with future-proof assurance.

Contact us

For more information, call your Spirent sales representative or visit us on the Web at http://www.spirent.com/about-Us/contact_us.

Realize more with Spirent CLEAR solutions

Spirent CLEAR solutions are a unique, tailored approach to test automation and lab optimization. CLEAR solutions address the challenges facing teams that inhibit successful adoption of a better process and avoid the pitfalls of many failed test automation projects. Spirent's solution experts listen to and work closely with customers to develop the right solution that fits the environment while promoting the best practices of product development and test. Spirent takes a CLEAR approach to solving the testing challenges facing customers today and for the future.

C Collaboration
L Leadership
E Exploration
A Acceleration
R Realization

Collaboration	A trusted partner that collaborates with customers and domain experts to deliver comprehensive, best in breed solutions to achieve financial and technical goals.
Leadership	Solution professionals provide leadership throughout the process including design, planning, implementation, adoption, training and project management, along with a team of solution architects to deliver a complete test solution.
Exploration	Through exploration of the challenges facing the customer, consideration of the various roles of the stakeholders and the tools needed, a comprehensive solution design is produced.
Acceleration	CLEAR Solutions are designed to accelerate the testing process using best practices. By using the right tools and processes, Spirent ensures acceleration of test development, lab management and test bed configuration, test execution and results analysis to meet the pre-defined goals.
Realization	Results driven solutions help customers realize more of their financial and technical objectives.

Spirent CLEAR solutions assist with...

Project delays—Agile product development – New development processes are adopted, but the testing infrastructure is not improved to keep pace. Testers are becoming part of the development team and working in parallel with the developers to create and test products in short iterative cycles. Tests must often be created before the product is ready.

Process integration—Continuous Integration – New deployment tools are being adopted to accelerate deployment of new releases into production. The largest reported challenge facing continuous integration and DevOps teams is the automation of the testing required to ensure readiness for production.

Cost overruns—Expanding product requirements – Being more responsive to customers' demands is critical to any business' success. In an effort to satisfy customers, product release requirements often expand, but the delivery date is not moved.

Straining quality—Growing product complexity – As new features are added exponentially to products, comprehensive testing exceeds the capacity of the existing team

Spirent automation solution suite

Spirent iTest— An integrated test authoring and execution solution for rapidly developing, automating, and maintaining test cases.

Spirent Velocity— A robust virtual/physical testbed orchestration and test case management solution for facilitating lab management and scheduling, as well as, executing and analysis of test cases.

Spirent Professional Services— Provide qualified test experts with hands-on solution knowledge with a 'deep bench of professionals to deliver solutions