

Spirent iTest

Test as a Service Platform

Highlights

- Turbo-Charge Python Automation
- Capture + Replay
- Test Case Abstraction for Reusability
- Automated Data Extraction
- Single Test Report Unifying All Responses
- Physical, Virtual, and Hybrid Testing

Tightly integrated Lab and Test as a Service Platform

This platform consists of two products: iTest and Velocity. They are tightly integrated to maximize reuse and test coverage. Tests and topologies are developed and consumed seamlessly across both products.

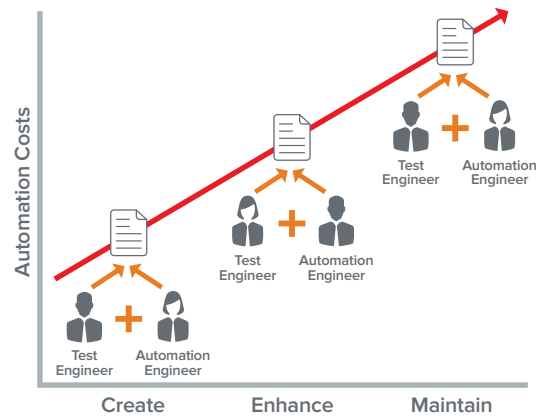
Challenges

Software products and services constantly face competitive pressure to reach market faster as well as to increase quality. To achieve these demanding goals, developers now understand they must implement continuous test throughout the development cycle. That saves time and maximizes test coverage and quality. However, test teams struggle to fulfill the automated test creation demands necessary to keep pace with this new, Agile product development paradigm.

Commonly associated symptoms include:

- Feature development times exceed market windows
- Escalating automation costs exceed budgets
- End customer dissatisfaction with product or service quality
- Testing unable to keep pace with development

Python is commonly employed for test automation. However, automation engineers are typically not subject matter experts and therefore must be paired with testing engineers. This doubles the effort required to automate. With iTest, Python developers operate independently, dramatically increasing efficiency.



The Solution

Meeting ever shortening time-to-market windows while simultaneously increasing quality demands adoption of highly automated DevOps practices. iTest ensures automated test assets can be created within the allotted test cycle, enabling testing to keep pace. iTest in tandem with Velocity provides a Test as a Service solution enabling true continuous testing to be realized. It is continuous testing that delivers the speed and repeatability critical for DevOps success.

Using iTest every team member is able to create test automation assets. Better yet, all tests are portable and reusable. That drastically increases your engineers' ability to find defects before they are released.

Key Features



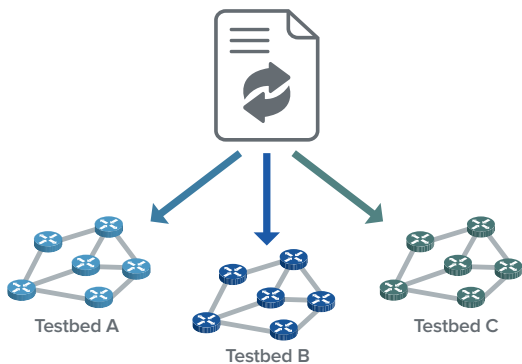
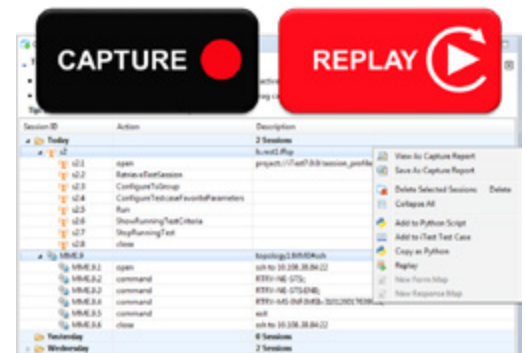
+ Spirent iTest

Turbo-Charge Python Automation

Leverage Python Session Level Control (SLC) to take advantage of iTest's superior automation capabilities. This maximizes automation engineers' efficiency and ability to achieve testing coverage goals. Furthermore, iTest authored assets are easily integrated with Python frameworks such as Robot.

Rapidly Build Out Automation with Capture + Replay

Test engineers and/or automation engineers create automation following their natural workflow by capturing every action during a manual test and replaying the captured steps within automated tests.



Test Case Abstraction for Reusability

Using iTest, tests are easily parameterized to ensure reusability. This enables tests to be written once and then used on many different testbeds. Doing so dramatically increases testing efficiency and increases test coverage.

Automated Data Abstraction with Response Maps

Device responses are commonly difficult to interpret, and each device has its own unique characteristics, thereby compounding the complexities. With iTest the parsing of each message is automated using Response Maps. This enables you to gain actionable information by automatically deconstructing device responses.



Key Features (cont'd)

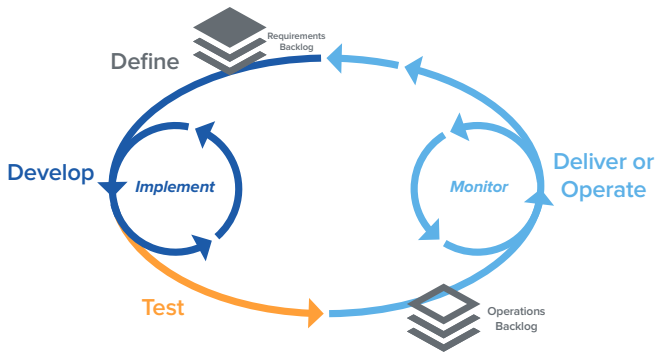


Single Test Reports Unifying All Responses

iTest reports consolidate all disparate responses, such as devices under test and traffic generators, into a single unified test report for highly efficient root cause analysis. Plus, professional reports can be tailored for each different audience including managers, engineers, and testers.

Physical, Virtual and Hybrid Testing

iTest authored assets operate just as efficiently on physical devices as well as virtual network functions (VNF) and combinations of physical and virtual (Hybrid). This enables test organizations to maximize test coverage while minimizing CapEx.

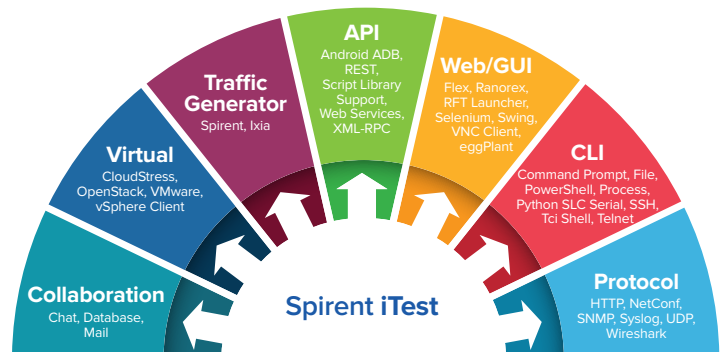


Empower DevOps Continuous Test

iTest integrates directly into DevOps tool chains thus providing the speed necessary for continuous testing to succeed. With immediate quality feedback subsequent to code changes and/or new software builds, your team has the information needed to keep pace with development.

Over 30 Different Session Types

iTest sessions interactively control the most commonly used devices, software APIs, physical or virtual environments, traffic generators, test tools, and GUI and web browser automation software. Creating a sophisticated test script is as simple as opening the session and interacting with the DUT. All interactions and responses are automatically captured for straight forward reusability.



iTest Cases Studies

Major NEM needed the ability to generate documentation to repeat and reuse tests accurately. They lacked comprehensive and reliable testing automation software that would help reduce time and expenditures. iTest filled this gap.

Net result: improved time-to-market and reduced costs by 40%

Increased automated test cases from **<10% to 75%** **7X** increase in testing efficiency

A growing Test and Measurement company added more complex products, regression testing became more of a priority. They determined the lack of test automation to be a significant bottleneck. With iTest, they've dramatically expanded their test automation.

Net result: streamlined and accelerated release validation for 700% productivity gain

65% of test cases automated **\$500K** annual cost saving

Cut test execution time from **60** to **6** minutes **Over 10X** speedup in regression testing

Major North American semiconductor vendor experienced delays in getting new product to market. Once they recognized the need to automate, they turned to iTest to escape their heavy dependency on manual and time consuming test cycles.

Net result: release timeliness improved via test case reuse for over 1000% efficiency gain.

Testing time cut **5 hours** to **5 minutes** **98%** increase in test coverage

A major European service Provider NOC was unable to configure automation within their organization. With iTest, they were able to maintain automation configurations and reduce their reliance on expensive external contractors.

Net result: developed predictive task automation for 320% capacity increase.

For more information on Spirent's Test as a Service platform, please visit www.spirent.com/solutions/automation

Contact Us

For more information, call your Spirent sales representative or visit us on the Web at www.spirent.com/ContactSpirent.

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