Spirent iTest
Python-Based Network Automation and Verification IDE

Overview
Spirent iTest was created to simplify the complexities presented by heterogeneous networks by allowing development and operations teams to rapidly create portable automation within an agnostic network automation development framework.

Spirent iTest delivers the first ever unified Interactive Development Environment for Python, Robot and iTest users. This release provides the optimal environment for creating modern network automation and verification applications. Our innovative Portable Automation Format (PAF) simplifies automation and adoption by enabling developers to leverage their automated applications for both lab and production use. Spirent iTest highly productive Record-Playback and patented Response Mapping are available within Python and Robot development environments.

Business Benefits
• Single solution for both lab and production environments: automate, verify and seamlessly deploy from lab to production
• Speed up time to market using reusable automation libraries for Python and Robot
• Improve efficiency with built-in DevOps workflows and sharing of environments

iTest IDE is designed to abstract the complexity of networks from the ground up.

Testimonials
Cut test execution time from 60 minutes to 5 Hours
Cut test execution time from 60 minutes to 5 Hours

Heterogenous Hybrid (Physical and Virtual) Networks

<table>
<thead>
<tr>
<th>Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Python-based platform for automation developers and network engineers</td>
</tr>
<tr>
<td>• Abstract the complexity of hybrid networks to create robust Python and Robot automation and verification applications</td>
</tr>
<tr>
<td>• Easily convert manual network configurations and testing workflows into secure distributable automation applications, API libraries and keywords</td>
</tr>
<tr>
<td>• Integrated system analysis with customizable reports for actionable verification</td>
</tr>
<tr>
<td>• Portable Automation Format accelerating deployments from lab to production</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interactive Development Environment (IDE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Development of Python, Robot and iTest Network Automation and Verification Applications</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Simplified Automation—Portable Automation Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common API</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Simplified API Interface—Abstracted API and Keyword Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Applications</td>
</tr>
<tr>
<td>CloudSure, OpenStack, VMware, vSphere,</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Simplified Session Interface—Record-Playback w/ Response Mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncommon API</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Testimonials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased automated test cases from &lt;10% to 75%</td>
</tr>
<tr>
<td>7X increase in testing efficiency</td>
</tr>
<tr>
<td>65% of test cases automated</td>
</tr>
<tr>
<td>$500K annual cost saving</td>
</tr>
<tr>
<td>Cut test execution time from 60 minutes to 6 minutes</td>
</tr>
<tr>
<td>Over 10X speedup in regression testing</td>
</tr>
<tr>
<td>Testing time cut 5 Hours to 5 Minutes</td>
</tr>
<tr>
<td>98% increase in test coverage</td>
</tr>
</tbody>
</table>
Spirent iTest
Python-Based Network Automation and Verification IDE

Spirent iTest IDE
Python-based Interactive Development Environment (IDE) for automation developers and network engineers.

Key IDE Features

Python-Based: Rapidly create, reuse and publish Python and Robot Framework automation content from a unified development environment.

Live Interaction: Real-time development and troubleshooting of network and test automation with any device, application, or system.

Record and Playback: Create automation scripts by capturing every action during a manual test and replaying the captured steps.

Portable Automation Format: Develop and export automated tests for use in any environment including lab, staging and production networks.

Response Mapping: This patented feature automatically parses complex device messages to extract the key information.

Leverage existing automation: Enhance the value of your existing Python, Robot, Bash and PowerShell content by importing them via ‘File -> Import’
# Spirent iTest
**Python-Based Network Automation and Verification IDE**

## Spirent iTest Portable Automation Format
Network automation and verification applications are easily created and securely distributed for both lab to production use.

### Network Automation and Verification IDE

- **Full capability of iTest applications, API libraries, keywords and results integrated with Python and Robot IDEs**
  - Results Analysis
    - Apply complex analysis rules with Boolean logic
    - Customizable reports with system integrated
  - Keyword Libraries
    - Build higher level, abstracted automation and test libraries
    - Publish as Python, Robot or RESTful APIs
  - Session Record-Playback
    - Abstract devices and applications with common session interface
    - Capture and replay user actions
    - Troubleshoot issues easily: extensive logs available, including from RESTful sessions
  - Network Topologies
    - Visually model and integrate network or test environments
    - Abstract the make, model, and version specifics from the devices being automated

### w/ Velocity LaaS/TaaS
- Create and instantiate development and test environments instantly
- Deploy, schedule, run and share automation
- Store and report all automation results

### w/ VisionWorks Service Assurance
- Publish automation from lab into production environments
- Test sequences for validating and monitoring network devices and services

---

## Secure Agent Framework Environment

- **Distributable Secure Automation:** Run only signed apps, encrypt all config inputs-outputs, stream encrypted data
- **Test Lab Environment**
- **Pre-Deployment Environment**
- **Production Environment**

## Collaborative Network DevOps Workflow Environment

- **Automation Developers**
- **SHARE AUTOMATION**
- **git + Velocity**
- **SHARE ENVIRONMENTS**
- **Network Engineers**
Spirent iTest
Python-Based Network Automation and Verification IDE

Spirent iTest Expert Analysis and Community
Integrated verification tools for expert analysis and community of expert resources to jumpstart your automation.

**Expert Verification and Analysis**

Spirent iTest provides a correlated analysis of the entire system under test with configurable, personalized reports.

**Expert Community**

Find a wide variety of useful automation assets for your iTes projects. All Spirent Developer Community assets are available for your immediate download and use!

Either clone the repository from GitHub or click the project’s individual download button. Submit your projects and contributions back to the Developer Community from which others can benefit.

http://Developer.Spirent.com

---

Contact Us

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

www.spirent.com

© 2020 Spirent Communications, Inc. All of the company names and/or brand names and/or product names and/or logos referred to in this document, in particular the name “Spirent” and its logo device, are either registered trademarks or trademarks pending registration in accordance with relevant national laws. All rights reserved. Specifications subject to change without notice.