Easily Manage Complex Testing

In today’s era of ever-increasing product complexity and shorter release-cycle times, many web and mobile applications simply can't maintain consistent performance. Testing these apps to achieve performance can still be a daunting task. How do you keep pace with ever-increasing user expectations in the face of accelerating release cycles, rapidly growing IT complexity, and massive scalability requirements?

Micro Focus® LoadRunner and Performance Center 12.55—together with Network Virtualization for LoadRunner and Performance Center—empower DevOps teams to manage complexity by using a full spectrum of standard tools, technologies, utilities, and other resources to quickly and easily code performance testing into apps and things (devices and sensors).

Rely on Intuitive Reports and Analytics

LoadRunner and Performance Center 12.55 deliver important new reporting and analytics capabilities. Here is a quick look at what's new:

Online Anomaly Detection

Anomaly detection enables you to quickly, intuitively, and effectively identify abnormal application behavior in performance tests. With version 12.55, you can now use anomaly detection built into Performance Center to accomplish those tasks. Engineers can use insights derived from the anomaly detection to speed their diagnosis and investigation into system performance—and even see the precise triggers that caused the anomalies.

Offline Screen (Technical Preview)

One of the key features in Performance Center 12.53 was the interactive online graphs with enhanced usability and the ability to merge several graphs into one. The Offline Screen introduced in Performance Center 12.55 allows you to view the graphs of runs that have finished. It automatically appears in the history view, and the runtime view is not available.

It contains:
- A summary section that provides general data about the run
- A global control that allows setting the time range for all visible graphs
- The graph area and graph tree (same as in the online screen)

All other actions that can be performed on the graphs in the online screen are also available in the offline screen. The user can create merged graphs, select favorite measurements, change measurement colors, etc. Merged graphs and other settings that were created/set in the online screen during a run will be available in the offline screen.

Figure 1. Anomaly detection.

Figure 2. Offline screen.
Recording Summary Report
While browsing a customer app in a web browser, there are occasionally requests to servers that the user doesn’t necessarily like to include in the script, such as Google statistics, ads, third-party data, and so on. In LoadRunner and Performance Center version 12.55, VuGen introduces the new Recording Summary Report, which allows the user to:
- View general information on the recording session
- View detailed information on hosts, content types, and headers
- Conveniently manage traffic filtering (available in the Recording Options)

Using the report makes removing these unwanted requests from the script much easier and faster. Information shown in the report allows the user to potentially make decisions regarding application design, by observing the number of requests, size of data sent and received, type of data, etc.

The Recording Summary Report lets you concentrate on which parts of the business process you want to focus on when it comes to scripting, so you can get a more clean and dedicated script. This feature can help with troubleshooting issues (for example, those related to correlations found and replaced), leaving you the time to customize your scripts more efficiently.

NV Insights: HTTP/2 Support and Client-Side Breakdown Report
The NV Insights report can help you improve the performance of your application by identifying potentially problematic issues in your transactions and providing recommendations for optimizing network traffic. With the Client-side Breakdown Report (when using TruClient Web protocol), your teams can view statistics that help measure the quality of the user experience for your application.

Network Virtualization receives from TruClient the time of the events (start render, DOM loaded, page loaded), allowing the user to inspect events in the client as they correlate to network calls.

Recording on HTTP/2 has been supported since version 12.53. In version 12.55, NV Insights reporting now supports HTTP/2 recommendations (such as “how to configure your CDN”), improving the way to take advantage of this fast and efficient communication protocol.

Web-Based Administration
We’ve moved Performance Center administration tasks (previously performed in ALM Lab Management) to a new web-based administration user interface, to enhance and simplify your experience when configuring lab resources and systems.
Innovations We’re Delivering

**IoT Ready: New Protocol—MQTT**

MQTT (MQ Telemetry Transport) protocol is a machine-to-machine (M2M) protocol widely used in Internet of Things (IoT). It is a message-based protocol that is simple and extremely lightweight, and for this reason it is adopted across the IoT ecosystem. Almost all IoT cloud platforms support the MQTT protocol to send and receive data from smart objects.

We are proud to announce that a new MQTT protocol has been implemented in LoadRunner and Performance Center version 12.55. When using this new protocol, a user can emulate MQTT clients (sensors, actuators, switches, and so on) and design and execute performance testing of MQTT-based IoT systems.

**Simplified Testing**

The latest version of LoadRunner and Performance Center features several enhancements that improve and simplify application testing and facilitate collaboration among Agile/DevOps teams.

**JMeter Scripting Tool Support (Beta)**

Starting with version 12.55, you can run your JMeter scripts in LoadRunner and Performance Center and integrate JMeter with additional script types in any performance test.

**Correlation Enhancements**

Correlation is at the heart of complex scripting. We know this and we continue to improve the VuGen correlation capabilities in order to reduce the scripting time and efforts from the performance engineer while recording/replaying. This makes the user experience better and means faster time to value. The improvements include (please refer to the “What’s new” link for an exhaustive list):

- Attribute-based correlations (ABC), new correlation API that allows dynamic value extraction from HTML documents
- Updated correlation rules (SAP Fiori, SAP NWBC, SAP WebDynpro)
- Scan using popular encoding methods (Base64/XSS encoded/decoded)

**Convert TruClient Actions to Code (Technical Preview)**

How to make continuous performance and load testing practical in an age of ever-accelerating development cycles and ever-increasing user expectations? For application teams, that means the mentality must change from simple “record/playback” testing that occurs late in the product cycle to a more robust engineering approach that starts early in the cycle and occurs continuously.

TruClient Coded is the new functionality introduced in version 12.55 to convert TC scripts in code. It makes it easy to code load testing into your mobile and web apps, so testing can occur earlier, more often, and with much less effort over the entire development lifecycle.
Benefits:
- Ability to create complex scripts
- Faster-processing user interface
- Flexibility: DevOps and Agile teams can test their way, using familiar tools, on their schedule
- Less memory consumption

Docker-Based Load Generator Support
With Performance Center 12.55, engineers can now deploy a Docker-based load generator (LG), making it fast and easy to deploy the LG, load-test applications, and scale on different servers. (This feature has been available for LoadRunner since version 12.53.)

Production Analytics
Dynatrace and New Relic Integration
Application Performance Management (APM) tools are used to monitoring and manage of performance and availability of software applications by reporting mainly the following metrics:
- End user experience (response time, for example)
- Server performance (CPU, memory, server response time, code hotspots, exceptions, and so on)

So LoadRunner and/or Performance Center will generate load, while the APM tools will mostly monitor server behavior. By using them in conjunction, teams can better identify performance drawbacks before actual users find them.

As part of an effort to continue integration with the third-party and open source ecosystem, LoadRunner 12.55 supports Dynatrace and Performance Center version 12.55 supports both Dynatrace and New Relic. Now you can:
- Integrate Dynatrace/New Relic graphs during online execution
- Measure hundreds of metrics in each test run
- View combined results in analysis report

Other Enhancements
For details on additional enhancements in version 12.55, please go to:
What's New in LoadRunner 12.55
What's New in Performance Center 12.55

Build, Test, and Deliver Quality Applications Faster
Take advantage of the new capabilities built into LoadRunner and Performance Center version 12.55 to build, test, and deliver your applications with breakthrough speed and quality. Talk with your local Micro Focus representative to explore what your organization can achieve with version 12.55.

Learn More At
www.microfocus.com/loadrunner
www.microfocus.com/performancecenter