LoadRunner and Performance Center Software

What’s New in Version 12.53
LoadRunner and Performance Center Software

With the widespread adoption of agile development methodologies and accelerated delivery through DevOps, companies must release applications with increased velocity, without sacrificing quality and performance. Micro Focus® LoadRunner and Performance Center software are industry-leading performance engineering enterprise load testing solutions that enable you to deliver applications with superior speed and scalability for your end users.

Version 12.53 includes features and enhancements for supporting modern technologies, integrations, and platforms. These new performance testing features and updates are centered on offering innovation for the future, simplified testing, intuitive reports and analytics, as well as continuous integration and testing.

Innovation for the Future: Digital Transformation

Media Streaming
In this age of digital transformation, new technologies, delivery methods, and standards are constantly emerging for Web applications.

As more websites offer audio and visual content to their end users, media streaming has become mainstream. Version 12.53 of LoadRunner and Performance Center offers support for recording HTTP audio and video streaming.

New unified APIs are provided to perform common video player actions, and Web HTTP/HTML and mobile scripts can record and capture media streaming. From there, load test scenarios can be created to emulate hundreds to thousands of virtual customers viewing videos or listening to audio simultaneously. New streaming metrics for lagging, buffering, and so on, are available during runtime in the controller.

This new feature will enable your application load testing teams to unearth performance bottlenecks caused by media streaming issues pre-production.

PCoIP from Teradici
Version 12.53 also includes a new protocol for supporting an additional virtual desktop infrastructure (VDI) platform. Teradici has partnered with Micro Focus to provide its PCoIP protocol for LoadRunner and Performance Center.

PCoIP scripts can now be authored in the Virtual User Generator (VuGen), the easy-to-use scripting and debugging engine used by LoadRunner and Performance Center. Tests can be generated for a variety of PCoIP configurations including cloud or in-house, bare metal or virtual machine deployments, as well as hybrid environments. PCoIP customers will have a better understanding of their VDI environment prior to production so they can deploy applications and system components with confidence.

Time to Market: Simplified Testing
As agile development and DevOps processes gain traction and increase the velocity with which organizations must implement application performance testing, it is essential for script and test creation to be simplified.
Version 12.50 of LoadRunner and Performance Center introduced support for building scripts in native JavaScript in the VuGen, and version 12.53 includes additional features that make application load testing easier.

**Git Integration**
Both LoadRunner and Performance Center offer many integrations with third party and open source solutions. In version 12.53, the VuGen integrates with Git, one of the leading source control management solutions.

With this integration, you can store VuGen scripts in a Git or a GitHub repository. This new feature greatly improves collaboration and versioning for agile teams.

**TruClient Enhancements**
TruClient remains the leading protocol for creating browser-based scripts with minimal coding required. Various updates, including support for new browser versions, have been added to increase TruClient’s usability and simplicity. The Record Once, Replay All (RORA) feature was introduced in version 12.50 and enables testers to create a TruClient script and run the same script across a variety of browsers. This significantly reduces scripting time and eliminates the need for maintaining separate scripts for different browsers. RORA supports Chromium, Internet Explorer, and Firefox.

In version 12.53, enhancements were also made to the TruClient object identification capability which now includes an automatic performance testing mode. A new end event feature was added to aid in object identification, too. These improvements make the scripting process even easier for testers.

Measuring end-user experience is becoming an important practice within the performance engineering field. With version 12.53, you can view client-side metrics for TruClient scripts. A HAR file is generated from the scripts and can be opened in an external HAR browser. A client-side breakdown report is then available within the browser.

**Insights: Intuitive Reports and Analytics**
LoadRunner and Performance Center provide several analytical features and reports.

**Performance Center Usage and Admin Reports**
Performance Center includes usage and admin reports that provide added visibility. These reports were significantly enhanced in version 12.53. An intuitive Web interface was added for viewing the admin dashboard, and reports can be displayed on a variety of different browsers. Data can also be analyzed and viewed across projects and sorted according to time range.

Performance Center usage reports were also updated with an easy-to-read format. It’s now even simpler to analyze and understand departmental usage data for chargeback purposes.

**Network Virtualization Reports**
It’s essential to take the network into consideration when load testing. Utilizing network emulation is the only way to understand how an application will perform in production. Network Virtualization enables teams to incorporate real-world network conditions in their load test scenarios. A variety of different network connections can be simulated during testing and in-depth analytics reports are available after tests run.

With version 12.53 of Network Virtualization for LoadRunner and Performance Center, you can analyze and compare application behavior over various network conditions. The new Network Virtualization Insights report enables you to view side-by-side data for a variety of network conditions that were emulated during application load testing.

The NV Insights report helps performance engineers identify problematic transactions and find the cause of network-related performance issues. The report also offers in-depth optimization recommendations for improving your application across different network connections.
DevOps: Continuous Integration and Testing

PAL 2.0 Enhancements

Performance Application Lifecycle (PAL) 2.0 was released in version 12.50 of Performance Center; however, additional usability enhancements were made in version 12.53. The PAL feature enables teams to compare performance test results to real production data gathered from Application Performance Monitoring products, Google Analytics, WebTrends, and IIS logs in order to create more realistic load test scenarios.

Jenkins Integration

Incorporating load tests into your continuous integration and continuous testing practices remains at the core of LoadRunner and Performance Center integration with Jenkins.

In Performance Center 12.53, the integration with Jenkins has been strengthened to include trending. Performance Center has a trending feature to track changes between different load test runs. You can see improvements and regressions for transaction response times, throughput, hits per second, and other measurements from run to run. Now, this trending information can be viewed directly within Jenkins, giving you the metrics you need sooner without logging on to Performance Center.

Miscellaneous Enhancements

Virtual User Generator

The VuGen now offers:

- A REST API editor enabling you to create and test REST API steps in scripts
- Improved support for instant traffic capture files (including PCAP, HAR, SAZ)
- Ability to check script compatibility for Linux load generators
- Optional data collection program, compiling VuGen usage analytics to help improve VuGen quality
- Multiple usability improvements in the following areas: correlations, parameterization and data import, Network Virtualization Analytics Report, and menus

Jenkins Integration

- Ability to easily record SAPUI5 applications
- Improvements to interactive script development, including the ability to control actions during recording
- Changes to browser version support:
  - Chromium 46
  - Firefox 40.03
  - Internet Explorer 10 and 11 (Internet Explorer 9 is no longer supported)
- Support for additional Virtual Table Server (VTS) APIs
- TruClient Standalone
  - Revamped TruClient Launcher
  - Support for non-zipped script folders
Controller Enhancements
- New cloud provider DigitalOcean that allows you to now provision load generators with Amazon EC2, Microsoft AZURE, Google Compute Engine, and DigitalOcean
- Script-load generator version compatibility check

Newly Supported Platforms
- Windows 10
- Microsoft Edge browser
- Visual Studio 2013 add-in
- Visual Studio 2015 add-in

Protocol | How Does Retain Unified Archiving Help?
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Citrix | • OCR text trapping
• Impatient user emulation
Flex | • Support for Java serialized objects
FTP | • Support for 64-bit recording
Java-based protocols | • Support for Java 8 (JDK 8) in the following protocols: Java over HTTP, Java Record Replay, Java Vuser
• Support for 64-bit recording in the following protocol: Java Record Replay
• Support for 64-bit replay in the following protocols: Java Record Replay (with Java 8), Java Vuser
• General Java-based protocols usability improvements
Oracle (2-tier) | • Support for Oracle Database 12c
Web HTTP/HTML | • Support for HTTP Video Streaming
• Support for HTTP2 Record and Replay including multiplexing
• Support for Server Name Identification (SNI)
• New APIs to edit JSON
• The Web HTTP/HTML protocol was unified with the Mobile Application HTTP/HTML protocol
Teradici PCoIP | • Ability to record and replay scripts based on Teradici PCoIP protocol
Web Services | • Support selection of certificate file
• Improved support for CDATA sections
• New web_service_set_option API for controlling different Web Service call options
SAP GUI | • Support for SAP GUI 7.40

Performance Center Specific Enhancements
- Service Virtualization usability enhancements
- Enhanced online screen
- Personally identifiable information compliance
- Complete noise generation licensing

Learn more at
www.microfocus.com/loadrunner
www.microfocus.com/performancecenter