

# LoadRunner Professional

If your co-located teams need to test performance across a wide range of application types, different network conditions and varying service levels, LoadRunner Professional delivers an intuitive and versatile solution that saves you time, improves code coverage and provides accurate results.

## Product Highlights

The average enterprise employs almost 300 applications\*—spanning mission critical back-end systems to the latest architectures. Application density and complexity isn't slowing down, which makes your job as a performance engineer that much harder—from designing comprehensive test scenarios, supporting a wide range of web, mobile and off-the-shelf technologies, analyzing results, to collaborating with other teams. You need a performance testing solution that simplifies your work and saves you time.

That is where LoadRunner Professional comes into play. You won't be held back with limited application support, poor reporting or lack of scale. With broad coverage, innovative technologies, extensive integrations and powerful analytics, you can tackle any project. When combined with the rest of the LoadRunner family, your organization can build a performance engineering practice that scales. Simply choose the right tool for the right job while leveraging a connected ecosystem that delivers smarter insights, tighter collaboration and better cost savings.

## Key Features

### Intuitive and Easy to Use

Take a look at customer reviews and you'll see a common thread—LoadRunner Professional is versatile, easy to use and amazingly intuitive. It's no wonder why LoadRunner Professional is the industry standard. Your beginner testers can quickly learn the basics and apply them

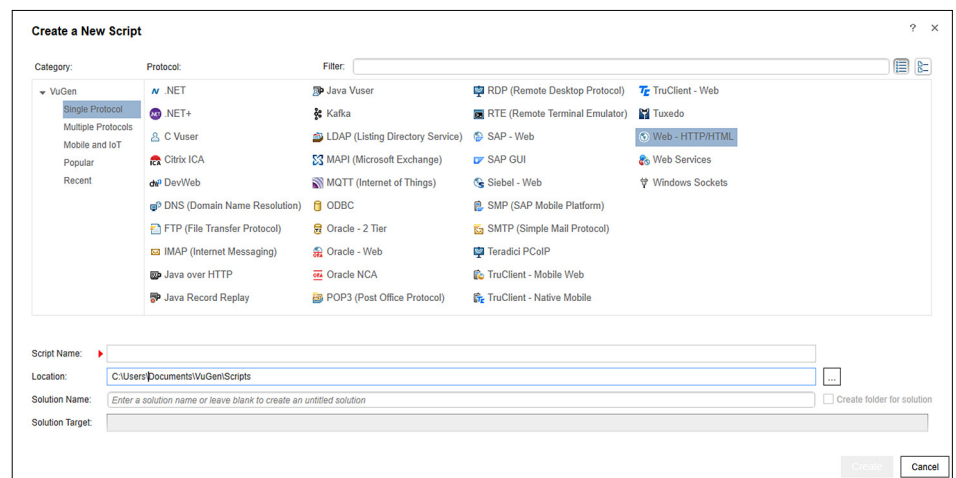
to their testing tasks, while your more experienced engineers can exploit all the features for the most complex of scenarios. With the largest user community and extensive documentation, help is always a click away in forums, blogs and user groups.

### Comprehensive Enterprise Coverage

It doesn't matter if you are testing the latest mobile and web technologies, packaged applications, or legacy applications—everything is covered. Support for multiple protocols such as HTML, WebSocket, AJAX, RDP, Database, Remote Terminal Emulators, Citrix, Java, .NET, Oracle and SAP, is what sets LoadRunner Professional apart from competitors and why it is widely used in thousands of companies.

## Key Benefits

- Intuitive and easy to use interface makes it simple and versatile for performance testers of all levels
- Works for all types of web, mobile and packaged applications without heavy customization
- Implement extensive and flexible test scenarios to assess the impact on every application component
- Apply real-world workloads to any application with flexible hardware usage
- Obtain a single view of end-user response time, infrastructure-level, and network breakdown
- Easily integrate continuous performance testing in the CI/CD process



**Figure 1.** Enterprise coverage from the latest web and mobile technologies to packaged applications and more

\* Blissfully, 2020 SaaS Trends, March 2020

## Innovative Scripting Technologies

Scripting is a part of the job, but it doesn't have to be hard or complicated. You can reduce scripting time by 50% or more using LoadRunner Professional's TruClient protocol, automatic correlation, and correlate both front-end (user experience) and back-end (load) issues. In the end it all comes together with VuGen (Virtual User Generator) to easily create, record, correlate, replay and enhance scripts for more effective load testing. A 360 view of performance lets you evaluate the whole application, validate performance from end to end, and deliver high-quality software.

Given the prevalence of today's web and mobile applications, you need an approach that eliminates the temptation to skip critical aspects—whether that is the range of devices or browsers, checking peak traffic loads, or device-specific transactions. LoadRunner's patented TruClient protocol helps you understand how the user reacts by embedding scripting capabilities within a browser so that

it behaves like a true browser client. To help you evaluate the performance of your web application/services, DevWeb is a lightweight and scalable LoadRunner protocol that communicates over HTTP and WebSocket and can assist in API testing. With support for native mobile, Web and hybrid applications, you can easily test against any platform and OS.

## Extensive and Flexible Test Scenarios

Creating a useful performance script requires a lot of research and discussion with your team and stakeholders. The goals and parameters may stay the same or change with new conditions or services. Equally your test scenarios and scripts should easily adapt to minimize rework. LoadRunner Professional provides a number of key features that let you validate, enhance and modify your tests. You can quickly extend tests with success-failure checks, integrate external measurements to assess the impact on every application component, and emulate peak loads with rendezvous points that instruct virtual users to wait so that they

all simultaneously perform a task. For better flexibility, you can apply load on the go and change parameters when needed for the most representative testing possible. Ultimately you can create scenarios that result in a stronger, more reliable product in production.

## Realistic Network Conditions

Network conditions are continually evolving. You need to discover how network constraints affect communication between end users, the application, and its dependencies. But testing network performance in a lab doesn't tell you what your users will experience. LoadRunner Professional includes Network Virtualization capabilities that accurately simulate real-world conditions for an accurate analysis of user response time and throughput. With location-aware analytics, transaction analysis and optimization recommendations, your applications will live up to the expectations of your users.

## Accurate Workloads with Low Overhead

Running a test that reflects a large number of concurrent users requires resources. You don't want to be held back by a tool that can't scale or fails in the middle of a test run. LoadRunner Professional emulates hundreds or thousands of concurrent virtual users, so that you can run high-scale tests using minimal hardware, including any mix of physical, virtual or public cloud environments, to apply accurate workloads to any application.

## Continuous Testing Support

Broadening the integration of performance into the CI/CD process helps you balance and prioritize responsibilities across developers, testers, and performance engineers. You need an open approach that brings together and enhances the technologies DevOps and Agile teams need to test their way. LoadRunner Professional embraces that philosophy with built-in integrations across IDE, CI/CD, open source test automation, monitoring, and source code management tools.

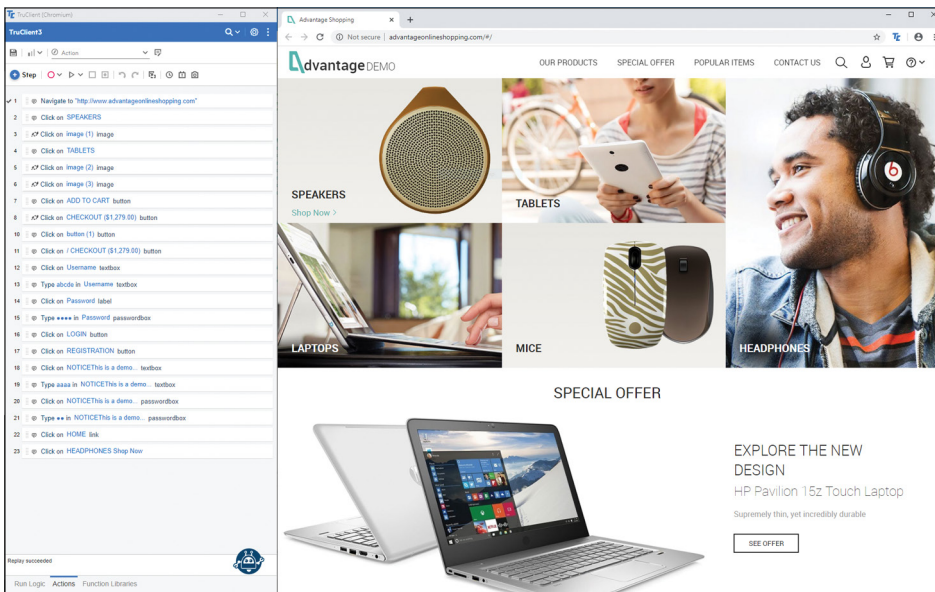
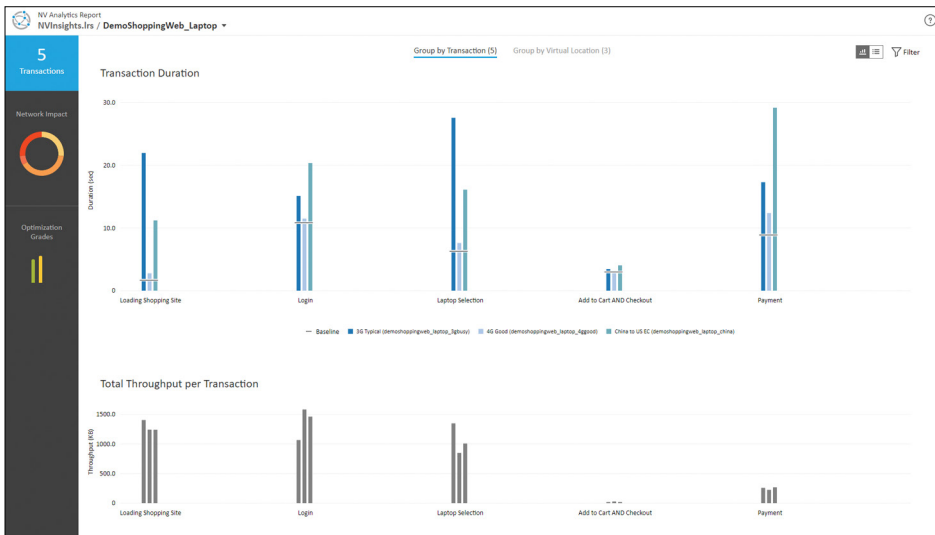


Figure 2. Patented TruClient technology provides a browser-embedded, interactive way of scripting web-based applications



**Figure 3.** Network insights include a transaction performance scorecard and custom performance optimization suggestions

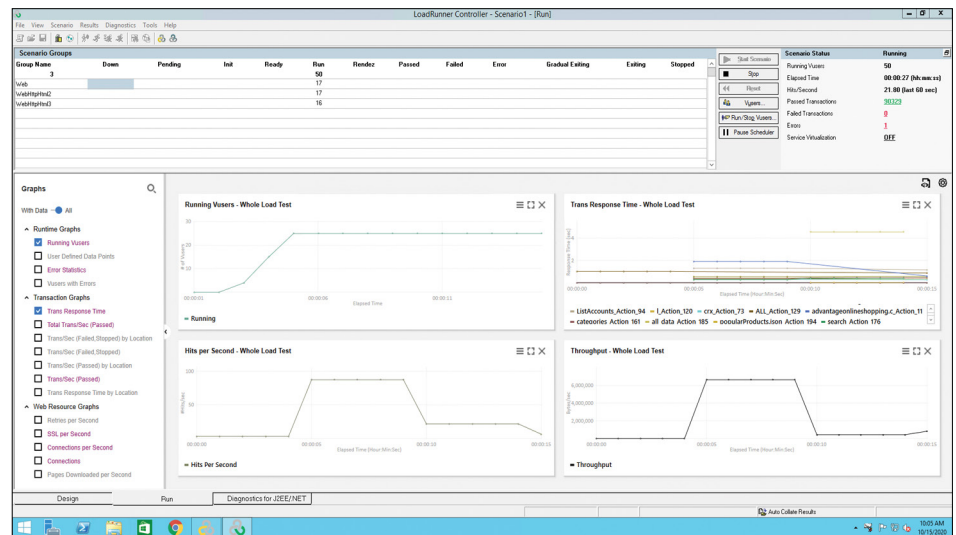
As part of the test scenario, you can leverage unit tests created by developers with execution support of JMeter, Gatling, JUnit, NUnit and Selenium scripts, and you can upload, store and share scripts in a Git repository using GitHub integration. Integration with standard CI/CD tools, such as Jenkins, Azure DevOps and TeamCity allows you to automatically execute LoadRunner Professional scenarios and report pass/fail status at the end of a build job.

### Powerful Analytics and Insights

Understanding your test results can be challenging as you pore through data and try to interpret the results. Automated and graphical analysis can significantly cut down on the time you spend. LoadRunner Professional's analysis capabilities have been called "really awesome" by users because the analysis engine lets you slice and dice data in many ways to easily pinpoint the root cause of problems. Bubble-up analysis graphs are automatically generated from test data, so that you can determine where failures against set service-level objectives exist, as well as some potential causes of failure.

### End-to-End Data Visualization

Performance tests alone don't always paint the full picture. Incorporating application monitoring



**Figure 4.** Graphical analysis capabilities lets you slice and dice data to easily pinpoint root cause problems and compare test results

and user sentiment data allows you to take a centralized approach to data collection and connect the dots. Integrations with monitoring solutions such as Dynatrace and Broadcom APM add a level of insight to correlate the test run and application performance data. Enhanced data visualization with Grafana and InfluxDB lets teams view real-time results and manipulate data to make smarter decisions.

### Flexible Deployment and Marketplace Extensions

You can deploy your way and minimize infrastructure needs with deployment options spanning on-premises, virtual, and public cloud (Amazon AWS and Microsoft Azure Marketplaces). [Micro Focus' AppDelivery Marketplace](#) provides a single portal for LoadRunner Professional users and partners to share and distribute content with the entire community. You can access and automatically install Function Libraries, Correlation Rules, Data Format Extensions and other add-ins directly from VuGen.

**“LoadRunner Professional gave us a robust performance testing framework with industry leading in-built capabilities. We found we could enter all our client activity, merge our interactions into one master performance testing scenario, and replicate from there.”**

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### **Performance Engineering with the LoadRunner Family**

High performing teams adopt a proactive, continuous performance engineering approach that includes four key attributes: expansion of performance testing to new roles, tight integration into the CI/CD process, end-to-end performance analysis, and continuous improvement. Combined these elements ensure that teams can engineer performance early in the lifecycle through the end-user experience.

The LoadRunner Family is an integrated set of enterprise-grade performance engineering solutions that work independently or in a combined fashion. With any solution, you can confidently test complex load, stress, and performance scenarios across legacy, website, and mobile applications—while benefitting from shared capabilities and common technology. Ensuring that tools are right-sized for the different users while exploiting test reuse, and

managing or delivering shared infrastructure helps you develop a performance engineering ecosystem for success. The LoadRunner family includes:

- **LoadRunner Professional**—versatile and comprehensive performance testing for co-located teams
- **LoadRunner Enterprise**—collaborative performance testing platform for globally distributed teams
- **LoadRunner Cloud**—cloud-based performance testing for extreme scale and flexibility
- **LoadRunner Developer**—shift-left performance testing embedded throughout the development lifecycle

Learn more about LoadRunner Professional at [microfocus.com/LoadRunner](http://microfocus.com/LoadRunner) or learn more about the LoadRunner family at [microfocus.com/performance-engineering](http://microfocus.com/performance-engineering).