

# Test Your Applications Just as Your Clients Do

## LoadXpert Datasheet

Working in environment of sophisticated information technologies more often than not means that we rely and depend on software applications to do our best. Knowing their limits, expanding their boundaries, providing similar yet always improved functionality and doing it all in real-time becomes paramount today. We call it question of capability to adopt applications for ever-changing, fast pacing requirements of daily business, driven both by customers and employees. And there is only one way to learn what they are experiencing: to **test applications** just as they do.

PSTech provides unique package of **performance testing tool** and services branded as LoadXpert. Enabling various capabilities in software performance testing and Web Applications segment, LoadXpert empowers our clients to evaluate and optimize their IT infrastructure regardless of their core business or capacity. LoadXpert supports clients and testing experts – as well as their customers – with support for most widely used Web GUI protocols, such as: HTTP/SXML, SSH and FTP, and the tool is customizable to support other proprietary protocols based on the client libraries, as well as with unlimited number of virtual users (VU) per system.

LoadXpert emulates production workload of large number of concurrent users, automatically performs the analysis of the response data and can be used for monitoring servers that run applications in real time. It is a scalable system consisted of integrated development environment application, server performance monitoring tool and a load generating client-server based application with variable number of load generating machines as clients controlled by a task-dispatching server. With functionalities such as easy to use script recording process, ability to integrate with and control other testing tools, flexible and simple load design wizard and server performance monitoring system, LoadXpert delivers **proven tool capabilities** for performance testing of Web Applications.

Using LoadXpert, our clients can design **real-world usage scenarios** that cover all key business processes and transactions within

their application, emulate the network traffic users are creating and thus stress an application from end to end in a controllable, measurable and repeatable way. Once tested, response data received from the target application is automatically analyzed to determine the application usage behavior during the test.

Along with workload generation, LoadXpert provides **detailed real-time information** about all aspects of application tested by monitoring underlying hardware and software servers that are driving it, even under production conditions. In that way LoadXpert can monitor both Windows and Linux systems and network counters as well as other performance counters available on those platforms.

LoadXpert can be delivered as the performance testing tool to **small and medium businesses** as well as **enterprise business** oriented clients, ready to be implemented into their infrastructure providing core information via via automated summary reports in just a few clicks, with an export capabilities in .pdf, HTML, .xls or .zip. Whether used by non-IT company searching for ways to improve their software output by internal IT department or by an IT company without testing capabilities and interested in self-testing and product evaluation, we can provide our software with licenses on value based pricelist, with online training and various options and discounts.

We specially recommend LoadXpert to IT companies with performance testing as their core business offering them quantity based and loyalty empowered pricelist and discounts endorsed by country and/or regional multi-year contracts.



- **Low hardware requirements, scalable system with variable number of load generator machines.**

System is a client-server application, where clients are controlled by the server. Server dispatches the load generation tasks onto as many clients as you wish, one client can be installed on one machine. You can use whatever PC machines you have in your LAB.

- **Easy to use script recording process**

Preparing your test scripts has never been easier with our one-click-recording process. You can start the recorder and then continue using your application as you would normally do. LoadXpert will capture all the traffic that goes between your browser and your application. Later that traffic will be parameterized and multiplied onto as many instances as you want.

- **Ability to integrate with and control other testing tools**

LoadXpert supports SSH, Telnet and other similar protocols that can be used for controlling other testing tools in your lab automatically – when you want and as much as you want. Let LoadXpert be your main tool for your complex performance tests.

- **Flexible and easy to use load design wizard**

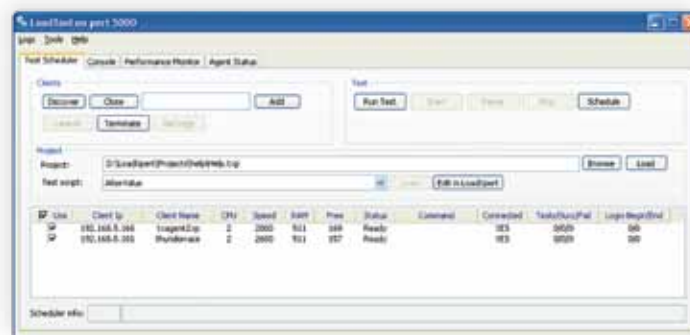
After you have recorded your test scripts, you can easily design the load that you want to throw at your application, by using LoadXpert load design wizard. You can choose how you want the load to reach its maximum and then how long you want your load test to last, by following on-screen instructions in our wizard.

- **Server performance monitoring system, which monitors Windows/Linux performance counters in real-time.**

With LoadXpert Monitor you can keep track on your server performance in real-time and record all performance measurements into a database for later processing. LoadXpert Monitor supports both Windows and Linux based servers and applications. It can be used prior, during and after load tests.

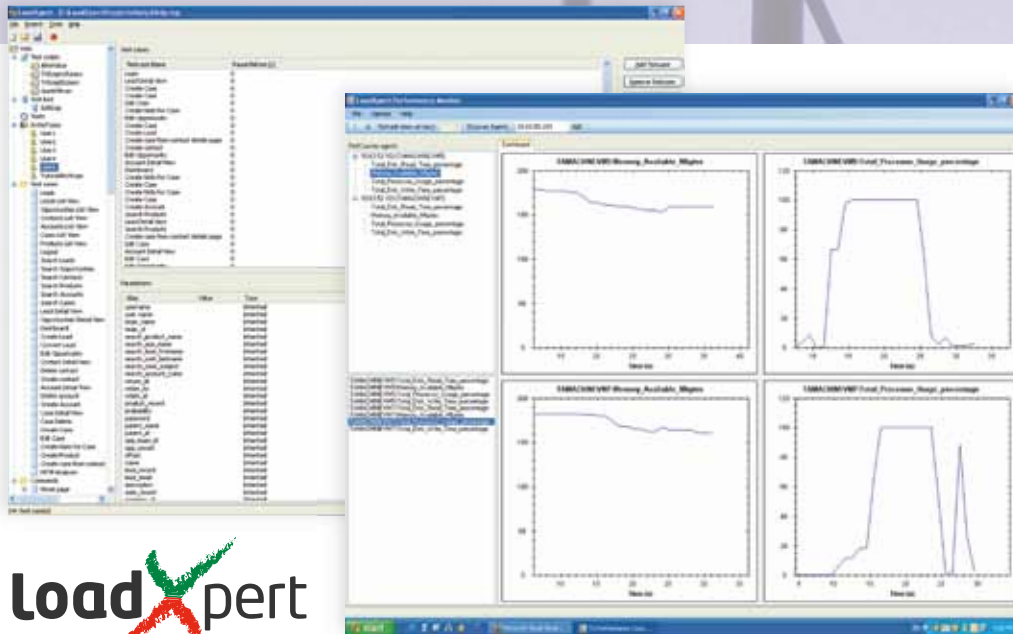
- **Fast growing happy customer list!**

Proven tool for performance testing of Web Applications (Cisco and Hypo-Alpe-Adria bank as customers)



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**LoadXpert**

- **Integrated Development Environment (IDE)** for test script editing and traffic recording
- **Load Script Wizard**, for quick and easy way to design the load scenario during the test
- **HTTP/HTTPS Recorder**, simple utility within IDE used for capturing HTTP and HTTPS traffic between users and application
- **Scalable Client-Server architecture**, for emulating concurrent user workload, where clients are controlled by the server. Server dispatches the load generation tasks onto as many clients as you wish, with one client software per machine.
- **Scheduled Test Execution**, you can schedule your tests, to start at any given moment in time (overnight testing etc)
- **Real-time Server Performance Monitoring System**, for monitoring and recording server performance by collecting performance counters from all underlying hardware and software servers (both Windows and Unix servers are supported). Performance counters are recorded to a database, for later detailed analysis. Web viewer version available also.
- **Automatic Report Generation**, test execution report with graphs and data analysis results is just a few clicks away.

## Customer Success Story

### Overview

Hypo Alpe-Adria-Bank a.d. Beograd has been conducting business in Serbia since 2002. as a part of the Hypo Alpe-Adria-Bank International, the most successful regional bank in Alpe Adriatic region. Today it's among top 5 most important financial institutions in Serbia, present in all large industrial centers, enabling orientation towards long term investment financing with its stability and significant financial potential which has positioned Hypo Alpe-Adria-Bank a. d. Beograd as one of the most important banks in development of Serbian economy.

### Challenge

Hypo Alpe-Adria-Bank a.d. Beograd needed to implement their all new front end system that should be deployed throughout all branches in Serbia. New system needed to support daily business of all branches in the country and it needed to be capable of handling large amount of

simultaneous online users. Mission critical for the Bank was to have a strong, robust and reliable application that can cope well with great workload on a daily bases. The Bank needed to test the bandwidth of their system before it went live for daily usage. PSTech has provided the Bank with an effective and reliable solution.

### PSTech Solution

By using LoadXpert performance testing tool, PSTech developed a solution implementing a robust test methodology supplied by LoadXpert tool, that supports complex usage scenarios and data processing, secure protocols, distributed server farm integrated with sophisticated infrastructure. That solution was able to successfully generate application load on demand by emulating workload of real life bank tellers and managers with a virtual user technology implemented in LoadXpert tool. After several rounds of testing, critical issues were discovered that needed extra attention, which in the end resulted with a greatly improved application response

## SYSTEM REQUIREMENTS

**Operating System** • Microsoft Windows

2000, Windows 2003, Windows XP

**Memory** • 1024 MB RAM

**Network** • 10 MBit Ethernet

(100 MBit recommended)

time and increased capacity to handle hundreds of users. Along with metric analysis of the application response under load, LoadXpert has also pinpointed bottleneck areas within application and its test bed that needed to be improved before going live. Information like that was very valuable since it unveils possible issues before they happen in the real world.

## Results

- Our execution in engagement resulted in:
- Average page response time reduced by 30%
- Workload throughput increased by 40%
- Dramatically decreased percentage of functional errors during high load, by 10 times
- Increased supported number of users by 30%
- Increased workload capacity (requests per second) by 250%

## Customer Quote:

*"The implementation of new front end system was of crucial importance for future development of our bank. We wanted to make sure that all aspects of the delivered solution are functioning according to ambitious specifications. In order to do this we had two options. Our first option was to buy expensive test tools and to make huge investments in human resources in terms of new recruitments and trainings. The other option was to outsource performance, stress and load testing. Since we are financial institution and not IT company, we decided to go with the second option, but not only because we wanted to avoid huge investments in something that is not part of our core business, but also because of expert know-how that we expected from our outsourcing partner. We decided to go with PSTech and they showed level of professionalism and expertise much beyond our expectations. With help of PSTech we improved all of our critical parameters. During the project, they were not only performing tests, they were also consulting us by proposing solutions for improvement. For the future projects of this kind PSTech will be first support to think of."*

**Jelena Kozic, Project Manager and Head of Product Management Department, Retail Sector, Hypo Alpe Adria Bank Beograd**



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