

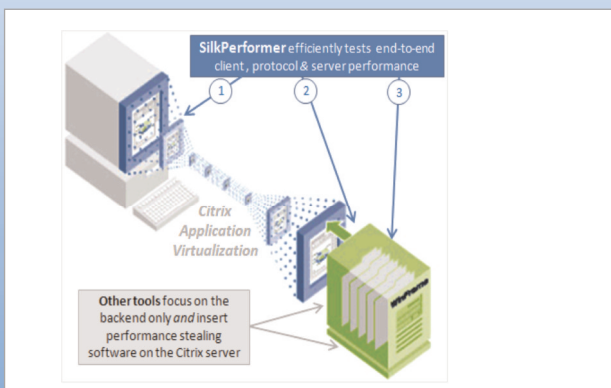
Borland® SilkPerformer®:
The Quality Choice for Citrix® Performance Testing
Citrix supports your critical applications; be confident your critical applications will support your users.

More than 200,000 customers trust Citrix® solutions to support their critical business applications. Surprisingly, many Citrix deployments are inadequately tested for scalability and load – risking business failure! High cost, limited time, inadequate skills, and inaccurate results are reasons often cited for bypassing performance testing. Borland® SilkPerformer® removes these barriers with the following advantages for Citrix testing:

- Deep integration with Citrix and unique end-user-focused Citrix support
- A proven, fast and efficient interface for test development by novice and experienced users
- Realistic, data-driven, cost-effective test environments that optimize test hardware usage
- Uncomplicated packaging, pricing and usage models

Citrix Performance Testing Challenge

Most performance testing solutions use intrusive software on servers and connect only with the communication stream (protocol) between servers and client to determine network and server-side performance, paying little attention to the client-side. For traditional applications, this may be adequate. With Citrix, measuring the unadulterated performance of the entire end-to-end experience is crucial, and assuring the client-side experience is optimized is paramount.



The Citrix Environment: Citrix XenApp™, formerly Presentation Server™, separates the user interface from the backend to deliver what Citrix calls “virtualized applications”. Only updated screens, mouse-clicks and keystrokes cross the network. It is crucial that performance is measured appropriately at the client side to be sure applications meet users’ performance expectations.

The SilkPerformer Difference

Faster, Easier Citrix Test Creation

Without the need for complex add-ins or restrictive licensing, any team member - novice to experienced engineer- can quickly and easily create tests with a simple workflow-driven interface. For Citrix, SilkPerformer uses non-intrusive Optical Character Recognition (OCR) to capture and validate unique objects on users’ screens. Additionally, deep integration with Citrix’s ICA protocol means SilkPerformer automates synchronization tasks that other solutions ignore or address with fragile, time-intensive manual adjustments. Tests are then fine-tuned and maintained with wizards and graphical cues, arming your entire team to quickly build the most comprehensive and realistic Citrix performance tests possible, eliminating the time barrier from load testing.

Accurate, Cost-effective Citrix Test Execution



Some solutions allow important performance tests to “pass” without validating that screen objects have actually loaded correctly. This is unacceptable for Citrix environments. SilkPerformer’s Citrix support assures user satisfaction by measuring that screen elements actually load with appropriate response time. Couple this with tests that represent variable user behavior using your own data and you have an accurate, realistic view of Citrix performance.

Performance Analysis Completes the Picture

For Citrix testing, SilkPerformer relies on the power of our time-proven product, plus customized focus on Citrix. Only SilkPerformer uses visual replay during analysis to show exactly what happened on a screen when a failure occurred. End-to-end troubleshooting is provided with SilkPerformer’s Server Analysis Module to monitor performance across the infrastructure during tests, so that when SilkPerformer isolates the issues, your team has the details to quickly fix them.

Cost-Conscious Usage Model

SilkPerformer enables teams to test more with a flexible and uncomplicated usage model. Our Citrix support is included in a package allowing SilkPerformer to be used by any team member to test any supported technology without restrictions within a specific global region (Americas, EMEA, or APAC).

SilkPerformer Delivers Technical Ease, Power and Accuracy for Citrix Testing

Optical Character Recognition (OCR)

With a right-mouse-click inside a Citrix environment, SilkPerformer allows you to easily select a screen-area and validate, parameterize, and parse the embedded font-based text content.

Deep Citrix ICA Integration

Deliver superior visibility into the test recording session to automatically manage Citrix-specific operations like: application opens, deconstructions, keystrokes, and mouse operations.

Automated Session and Synchronization Management

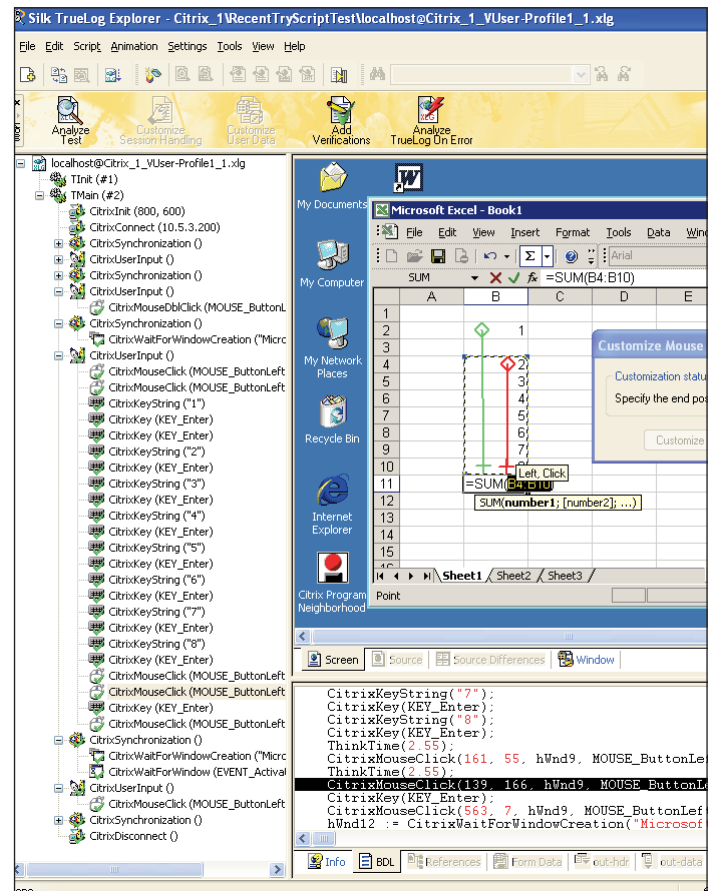
Automatically captured synchronization points and application wait-states are placed in the script, significantly lowering the scripting effort and assuring stability of script execution under load, ease of maintenance and extensibility of tests.

Server-Side Diagnostics

SilkPerformer's Server Analysis Module monitors server statistics and automatically correlates data with test results to identify ongoing problems with back-end servers, even those located behind firewalls.

Bitmap or Screen Verification and Synchronization

A hash-value is generated based on the screen for compare, not a bitmap diff. This means that SilkPerformer has lower-system resource usage during the performance test ensuring and that the load-test results aren't impacted by managing complex differencing operations.



SilkPerformer TrueLog Explorer provides a custom, intuitive interface for customizing data, and provisioning synch-points for accurate replay

Capability	SilkPerformer Advantage
Optical Character Recognition	Advanced, native Optical Character Recognition (OCR) is the best choice for text displayed in the Citrix client for processing of session-dependent text-based data, allowing you to add reliable synchronization points, parse session information for reuse in the script, and add text-based functional verifications, all independent of any screen settings on the client. Competitors require overhead-adding, intrusive technology on the Citrix server to offer less-effective character recognition.
Animated replay	Allows visual step-by-step script execution and provides sophisticated script debugging information, such as detailed logs about window and user events. Also, user actions are displayed in an animated way showing all mouse moves and key strokes. Competitors offer limited or no replay, incomplete logs, and no step-by-step debugging.
Visibility into ICA Actions	Deep integration into the Citrix SDK provides superior interpretation of embedded application execution. Ability to interpret complete window constructions and deconstructions ensures scripts are synchronized with application loading, giving a realistic profile of the application. Competitors' basic high-level Integration into Citrix limits the ability to understand detailed actions during execution.
Automated script-to-window synchronization	Reliable script synchronization with window events using "relative" window coordinates assures tests are stable, reliable and accurate, unlike the fragile test scripts delivered by less sophisticated solutions.
Easy insertion of script-to-screen syncs	Synchronization of script-to-screen events after the script has been recorded means screen events occur when text is being updated without displaying them in a new window by using our OCR detection. The intrusive approach of other vendors' solutions contradicts any post-recording capabilities they offer.

Borland is the leading vendor of Open Application Lifecycle Management (ALM) solutions - open to customers' processes, tools and platforms - providing the flexibility to manage, measure and improve the software delivery process.