

Query Recording and Playback

Performance and Load Testing for Vector / ActianX Applications

Eliminate the Risk of change through realistic stress and volume testing using **Actual** production workloads and workflow.

Change = Risk

Change is inevitable in any IT infrastructure. Most organizations can perform functional testing, batch testing and limited performance testing. Performing full scale volume tests that mimic the real production system is time-consuming and costly to get right. There is always a level of risk hanging over the final 'go live' moment.



Query Recording and Playback



Actian Services has a solution to this problem! Based on experience gained on many successful upgrade projects, we have built a toolset to record the production database workload on a normal day, and then play those queries back on a test system whenever you want.

This toolset (called QRP) provides the ability to validate performance and stability of any change. Using the query recordings taken inside the database server, playback runs as many user sessions as needed to replay queries at the same pace and in the same sequence¹ as they happened in production.

Whether you intend to upgrade your databases, migrate to a new platform or increase the number of end users on a

Action QRP enables:

- Replay of actual production workloads
- Realistic volume testing
- Concurrency and performance testing of major and minor changes
- Comparison of pre and post change performance
- Increase/decrease playback pace

Action QRP requires:

- Test platforms capable of hosting copy of production database
- Playback platform to simulate client/server
- Windows/Linux platform for pre-processing trace files

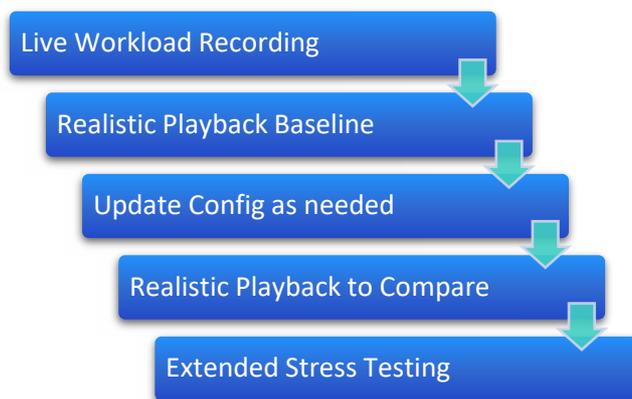
system (for example through platform consolidation) then you need QRP to prove your planned configuration has the capacity to cope with the intended load and that the concurrent usage does not introduce unforeseen system resource, locking, stability or performance issues.

QRP enables the direct comparison of server resource utilization, query response times and query results (row counts and errors) across the pre and post change environments. Playback can also be run at varying paces to simulate increased workloads or to accommodate less powerful test platforms.



What are the stages of Performance Testing?

- Query Recording** is available as part of the standard Vector and ActianX DBMS installation.
- Preprocessing** is performed on the output from the Query Recording phase to prepare the data for playback.
- Playback** will replay recordings of the workloads in real-time or alternately playback time can be increased or decreased as required. Each database request will be submitted in a valid sequence that replicates the actual production environment, including full transaction processing, simultaneous request submission and erroneous syntax entries.



Action Performance Testing Service

Action can offer a full testing service to help eliminate the risk of change. This would include the implementation of the QRP tools, management of production recording sessions, pre-processing and all the work necessary to conduct the required tests. The service would conclude with a comprehensive report describing the QRP project and the results of the testing.

Typical Project

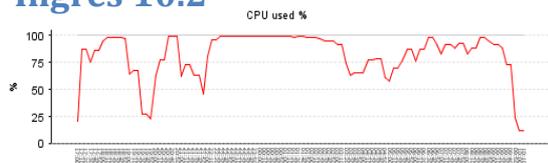
A performance testing project typically takes the form of multiple recording sessions followed by comparative playbacks against old and new configurations and then extended stress testing of the new system. Playback records query results and performance that can be used for analysis.

About Actian

Action makes data easy. We deliver cloud, hybrid and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization's growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: www.actian.com

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Ingres 10.2



Action X 11.2

