

# Comprehensive quality assurance for mainframe applications and back-office server components

Compuware Hiperstation *for WebSphere MQ* is a mainframe application quality assurance solution. With Hiperstation *for WebSphere MQ*, system and application programmers, and quality assurance personnel, can streamline testing for mainframe applications and back-office server components of web-based or distributed applications.

As organizations start to invest in new client/server application implementations such as Service-Oriented Architecture, the need for superior performance, reliability and security are all intensifying the demand for using the IBM zSeries platform as a back-end server for web-based and distributed applications. Hiperstation *for WebSphere MQ* helps you test quickly, accurately and cost-effectively, and deliver quality applications on time. It handles the repetitive, time-consuming steps involved in testing, so you can easily:

- build and maintain tests representing application business requirements
- implement consistent, repeatable, automated regression and performance tests
- test application changes without the user interface
- simulate server application responses during a user interface test
- test changes to the operating system, language environment or subsystems
- conduct pre-production performance testing for applications and systems software
- confirm disaster recovery site configuration and performance
- audit WebSphere MQ application message activity for appropriate access
- provide hidden details to help desk and production support personnel
- analyze test results in which all application response differences are identified

- expedite defect resolution
- thoroughly document test results.

## EXTENDED TESTING CAPABILITIES

Hiperstation *for WebSphere MQ* enhances unit, concurrency, integration, migration, capacity and performance testing. With its advanced record, review, replay and reporting functions, you can:

### RECORD

Hiperstation *for WebSphere MQ* records actual WebSphere MQ connections. A global recording facility lets you capture MQ messages flowing through z/Series MQ managers on test or production systems. This also includes any message activity flowing through the MQ Channel Initiators.

### REVIEW

Determining whether the expected queue is being accessed with expected data and using the correct parameters is a major challenge in deploying WebSphere MQ applications. Hiperstation *for WebSphere MQ* provides detailed information about WebSphere MQ application behavior. WebSphere MQ activity is formatted into the actual API calls, parameters used by the application, as well as GET and PUT detail data. An event summary describes what events took place on selected MQ managers, queues and applications within a given time frame. With a File-AID interface, you can map detail data into your application program's data maps.

### REPLAY

Timely testing in complex, WebSphere MQ frameworks can be difficult because of the interdependent environments required for each test. Hiperstation *for WebSphere MQ* simplifies the testing of distributed components with its ability to simulate server requests and responses. The message data formatted by Hiperstation *for WebSphere MQ* can automatically replay either side of a WebSphere MQ conversation. Application components residing in z/Series can then be tested with or without the front-end tiers.

## REPORT

Hiperstation for WebSphere MQ helps organize recorded WebSphere MQ activity into useful reports that highlight key trends, events and results. Reports also compare current MQ message contents and headers to an expected baseline. These reports are provided in hardcopy format, web-based HTML pages or comma-separated-values (CSV) files for flexibility and usability.

## REPEATABLE TESTING

Hiperstation for WebSphere MQ provides functions that help your staff create scripted tests to exercise the application program logic that is critical to the operation of your business. The nature of these test scripts makes them repeatable and, through unattended mode replay functions, makes them fully automatable, allowing you to perform more test iterations in less time.

## TESTING FLEXIBILITY

To significantly expand its unattended mode script replay capabilities, Hiperstation for WebSphere MQ uses IBM REXX as a smart scripting language. WebSphere MQ scripts can be customized to:

- modify data within a WebSphere MQ message
- read data from an external file and populate prerecorded WebSphere MQ messages
- perform conditional processing of WebSphere MQ messages based on live application requests and responses.

## SUPERIOR PERFORMANCE TESTING

Now your staff can utilize the power of Strobe for performance analysis, in addition to the capabilities of Hiperstation for WebSphere MQ, to build repeatable and automated tests. Strobe performance statistics provide visibility into the actual performance of the application while it's being tested and help ensure the application meets specific performance criteria for production.

## APPLICATION AUDITING AND HELP DESK

Additionally, Hiperstation for WebSphere MQ provides Application Auditing and Help Desk functionality. It records WebSphere MQ

application message activity and saves it in a repository. Having access to this information lets auditors review the activity report to identify unauthorized usage. It also allows the help desk to document WebSphere MQ application failures, which can assist production support personnel in understanding why the failure occurred and provides them with the capability to re-create the production problem.

## COMPLETE MAINFRAME QUALITY ASSURANCE TESTING WITH HIPERSTATION

Hiperstation for WebSphere MQ adds WebSphere MQ application testing to the comprehensive family of Hiperstation quality assurance software products:

- Hiperstation for VTAM tests any mainframe green-screen application, including those running in CICS, IMS/DC, IDMS/DC or TSO, and helps your organization measure, manage and minimize the risk of failures in these critical business applications.
- Hiperstation for Mainframe Servers tests your mainframe applications and back-office server components of your web-based and distributed applications using TCP/IP and APPC. This helps your organization measure, manage and minimize the risk of failures in these critical business applications.

## THE POWER OF INTEGRATION

Compuware is in a unique position to help you maximize the value of your IT investment. To provide system and application programmers, and quality assurance personnel, with a complete solution for managing and deploying zSeries applications and server components, Compuware continually enhances the integration between its products. Not only do Compuware's Hiperstation, Xpediter, Abend-AID, Strobe and File-AID products work with each other, but integrations also exist between our zSeries and distributed products such as Vantage and Changepoint. These integrations result in more powerful functionality, a reduction in the learning curve and increased user efficiency.

To learn more about Compuware Hiperstation, visit:  
[www.compuware.com/hiperstation](http://www.compuware.com/hiperstation)

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