

# Improve Application Quality with Automated Load, Performance and Integration Testing

**Hiperstation®** automates load, performance and integration testing to help DevOps teams reduce time-consuming manual tests and ensure mainframe applications are thoroughly tested and delivered while safeguarding superior performance, scalability and reliability.

## HIPERSTATION FOR TCP/IP AND APPC

System and application programmers as well as quality assurance personnel can use Hiperstation to streamline testing for mainframe applications and back-office server components of web-based or distributed applications using APPC or TCP/IP protocols. These protocols can include HTTP, HTTPS, Db2 Connect, IMS Connect, CICS Transaction Gateway and CICS External Call Interface over TCP/IP.

Hiperstation allows users to easily:

- Build and maintain tests representing application business requirements
- Implement consistent, repeatable, automated regression and performance tests
- Test application changes without a user interface
- Simulate server application responses during a user interface test
- Test operating system, language environment or subsystem changes
- Conduct pre-production performance testing for applications and systems software
- Confirm disaster recovery site configuration and performance
- Provide hidden details to help desk and production support personnel
- Analyze test results with all application response differences identified
- Expedite defect resolution
- Thoroughly document test results

Additionally, Hiperstation for TCP/IP and APPC enhances concurrency, integration, migration, capacity and performance testing by:

- Recording the TCP/IP data streams flowing through the z/OS IP stack and APPC connections going through the VTAM network on test or production systems.
- Providing analysis that shows how data travels to and from servers. TCP/IP and APPC data is formatted into parameters used by the application like actual client/server requests or APPC verbs as well as actual send-and-receive detail data. **Compuware File-AID** then includes the details in your application program's data maps.
- Replaying client requests without affecting the distributed front end, which simplifies mainframe TCP/IP, APPC and back-office distributed application component testing.
- Reporting TCP/IP application activity key trends, events and results in hard copy format, web-based HTML pages, comma-separated values or custom REXX files.

## HIPERSTATION FOR IBM MQ

Hiperstation for IBM MQ streamlines testing for mainframe applications and back-office server components of web-based or distributed applications. This functionality 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 a user interface
- Simulate server application responses during a user interface test
- Test operating system, language environment or subsystem changes
- Conduct pre-production performance testing for applications and systems software
- Confirm disaster recovery site configuration and performance
- 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

Hiperstation for IBM MQ enhances concurrency, integration, migration, capacity and performance testing by:

- Recording actual MQ messages flowing through z/Series MQ managers on test or production systems, including through the MQ Channel Initiators.
- Sharing detailed information about IBM MQ application behavior to determine if it performed as expected. Activity is formatted into 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 IBM MQ managers, queues and applications within a given timeframe. **Compuware File-AID** then includes this data into your application program's data maps.
- Replaying either side of an IBM MQ conversation. Testing is conducted by simulating server requests and responses, so applications can be tested with or without the front-end tiers.
- Reporting key trends, events and result which can be compared to an expected baseline. Reports are provided in hard copy format, web-based HTML pages or comma-separated values (CSV) files for flexibility and usability.

## HIPERSTATION FOR VTAM

Hiperstation for VTAM streamlines testing for any green screen application, including those running in CICS, IMS/DC, IDMS/DC and TSO. Hiperstation for VTAM helps you quickly, accurately and cost-effectively test while ensuring quality applications are delivered on time. It handles the repetitive, time-consuming steps involved in testing, so you can automatically:

- Build tests representing application business requirements
- Execute repeatable tests in a simulated production environment
- Analyze test results with screen differences identified
- Easily remediate tests due to application changes
- Expedite defect resolution
- Thoroughly document test results

Hiperstation for VTAM also enhances unit, concurrency, integration, migration, capacity and performance testing by:

- Recording user transaction green screen terminal activity.
- Highlighting all recorded activity in a formatted viewer with Session Demo.
- Replaying previously recorded sessions in slow motion, full-speed interactive mode or unattended mode.
- Reporting the differences between replay and baseline recording results.

### Better Manage Tests with the Automated Testing Vehicle (ATV) Manager

The ATV Manager gives your staff full control over the creation, maintenance and execution of application tests. With ATV Manager, you can:

- Create full regression or performance vehicles for each application
- Store related test assets such as user IDs, regions, load modules, datasets, JCL and REXX EXECs within each vehicle definition to remove the burdensome task of tracking assets manually
- Create test cases to meet specific business requirements, ensuring critical application functions are tested
- Set up appropriate pass/fail conditions and email alerts to allow support personnel to easily respond to test failures, even after hours

Additionally, you can simplify test runs by submitting each vehicle for the application you want to test. Results are then centrally stored within the ATV Manager environment and can be easily updated when applications change.

The Hiperstation for VTAM ATV Manager takes this one step further by integrating with **Compuware Strobe** to set appropriate performance threshold settings to determine if a particular test fails or passes, ensuring that the application meets specific performance criteria. Test results can be emailed to pre-defined recipients to ensure appropriate actions are taken in the event of a test failure.

Hiperstation for VTAM also improves collaboration by keeping track of changing requirements and publishing them for the entire team to review. It automatically routes test results, tasks and defect status information between and across development and testing teams.

### REPEATABLE, FLEXIBLE TESTING

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

You can also leverage Strobe with Hiperstation to build repeatable and automated tests. Strobe performance statistics provide visibility into actual application performance while it's being tested and help ensure that the application meets specific performance criteria for production.

To significantly expand its unattended mode script replay capabilities, Hiperstation uses IBM REXX as a smart scripting language. This allows customization of your scripts to:

- Modify data within a transmission
- Read data from an external file and populate pre-recorded test data
- Perform conditional data processing based on live application requests and responses
- Create custom reports

### THE VALUE OF HIPERSTATION

- Reduces the expense and time of application integration testing.
- Enhances developer productivity during mainframe application development.
- Increases mainframe application performance and scalability management.
- Helps developers focus on mainframe development activities.
- Expedites the defect resolution process.

Learn more at [compuware.com/hiperstation](https://compuware.com/hiperstation).

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#### The Mainframe Software Partner For The Next 50 Years

Compuware empowers the world's largest companies to excel in the digital economy by fully leveraging their high-value mainframe investments. We do this by delivering highly innovative solutions that uniquely enable IT professionals with mainstream skills to manage mainframe applications, data and platform operations.

**Learn more at [compuware.com](https://compuware.com).**

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