HP SOFTWARE FOR MOBILE APPLICATIONS WITH ZAP-FIX

Extend the HP Quality Center desktop testing environment to mobile platforms

Solution brief

Make it easier for your quality assurance teams to test mobile applications

More and more applications being developed today are designed for use on mobile devices. Like all business executives looking to increase revenue opportunities, you understand that these applications create new growth channels as you market and sell to a next-generation, real-time audience.

As with enterprise software applications, mobile applications are a foundation for good customer experiences, so they must adhere to the same rigid quality standards. Testing these applications requires understanding the different combinations and permutations of the test data and testing the right levels to map the risk to the quality requirements for each functional scenario.

However, despite the rapid growth of mobile applications, quality assurance (QA) and application testing teams using HP’s suite of industry-leading QA testing tools have still been doing their work the “old” way. Mobile applications under test use entirely different methods, objects, and controls than contemporary enterprise software applications. So, in order to test mobile applications, QA teams have to test them individually for each operating system (OS) on each mobile device. Not only is this process not ergonomically friendly, but testing is impossible to automate due to the incompatibility between mobile platforms and the Microsoft® Windows® OS on which HP Quality Center (HP QC) runs. This same incompatibility also makes it impossible to perform load testing, scalability testing, and application performance monitoring.

That’s a lot of wasted time, effort, and resources—and it’s placing undue physical strain on your QA personnel, too.

ZAP-fiX: automated HP Quality Center testing environment for mobile platforms

Recognizing and understanding the need for automated testing for mobile apps, ZAP Technologies, an HP Elite Partner, has developed a solution called ZAP-fiX that extends the HP Quality Center or HP Application Lifecycle Management (HP ALM) desktop testing environment to many mobile platforms: iPhone, iPad, WebOS, Android, BlackBerry, and Windows Mobile®.

ZAP-fiX can help you achieve:

• Automated test emulations of mobile OS-based applications using HP QuickTest Professional (HP QTP)
• Performance testing and monitoring with HP LoadRunner via a graphical user interface (GUI), using vUsers to enter the system under load, using either the ZAP-fiX Viewer or a Windows emulator
• An ergonomically friendly environment for manual testing of mobile applications on a client site, using a PC monitor, keyboard, and mouse instead of testing on the mobile device itself
ZAP-fiX provides a robust engine in which automated testing scenarios have the capability to achieve these goals. Because ZAP-fiX is integrated with the HP ALM suite, all quality assets can be managed and tracked to the source requirements. ZAP-fiX is used by major corporations in practically every industry, for manual testing, and it can be easily integrated into any HP QC or HP ALM environment, version 11.0 or later.

**ZAP-fiX works seamlessly with HP software testing deployments**

ZAP-fiX from ZAP Technologies is a hardware-agnostic software solution that enables the automated testing and monitoring of applications for iPhone, iPad, WebOS, Android, BlackBerry, and Windows Mobile devices from a Windows desktop interface. It is based on ZAP ObjectConnector technology, which offers a non-API-based, object-recognition approach that uses HP software to automate testing via a GUI on Windows cross-mobile platforms. To accomplish this automation, ZAP-fiX works hand-in-hand with HP QC, HP ALM, HP QTP, and HP LoadRunner by wirelessly connecting the ZAP-fiX Viewer to support mobile devices in the cloud, and also by converting LoadRunner scripts to application and business process management functions.

ZAP-fiX delivers robust object and interaction recognition through the HP QTP automated testing solution. With ZAP-fiX, your QA teams can leverage all of the functional testing technologies included in HP QTP to build and execute automated test scenarios on mobile applications.

ZAP-fiX automated testing enables the validation of functional test scenarios in each and every data and patch combination. In addition, it supports multiple test-execution paradigms on every mobile platform.

**ZAP-fiX works with these HP application lifecycle products**

- **HP Quality Center** is the market-leading Web-based quality management platform that enables you to manage application quality with a consistent, repeatable process that reduces risk and costs while increasing efficiency across the entire application lifecycle. HP QC delivers requirements management, release and cycle management, test management, defects management, and reporting. It does all this within a single platform that provides traceability and visibility across your entire process—delivering the information you need to make informed application release decisions.

- **HP Application Lifecycle Management** provides a centralized platform for managing and automating the application lifecycle from inception to retirement. It empowers application teams to plan, build, and release higher-quality applications with fewer delays. HP ALM can help you:
  - Centrally manage and track all application projects
  - Attain real-time visibility into the application lifecycle
  - Centrally manage and enforce consistent workflows and processes
  - Reduce duplication of effort across projects
  - Provide an aggregated, cross-application project view of quality status and defect trends
  - Facilitate collaboration and communication among internal and external stakeholder groups across multiple projects
HP QuickTest Professional (sold via the HP Unified Functional Testing package) enables you to build functional and regression test automation for software applications and environments. Featuring a GUI, it captures, verifies, and replays user interactions automatically and quickly helps identify and report on application effects. It also supports keyword and scripting interfaces, uses Visual Basic Scripting (VBScript) to specify a test procedure, and offers sophisticated functionality for collaboration among testers.

HP LoadRunner software is the industry standard for performance validation. It allows you to prevent application performance problems by detecting bottlenecks before a new system or upgrade is deployed. One of the most widely used testing solutions in the world today, LoadRunner provides an accurate picture of end-to-end system performance before going live so that you can verify that new or upgraded applications meet performance requirements. It also reduces hardware and software costs by accurately predicting application scalability and capacity.

How ZAP-fiX works

ZAP-fiX seamlessly integrates with HP QTP, HP QC, HP ALM, and HP LoadRunner, extending their capabilities by adding custom-support libraries for mobile application environments. When you use ZAP-fiX with HP QTP, your QA teams can automate testing by recognizing and supporting all mobile application technologies. ZAP-fiX is 100% keyword-enabled, giving QA engineers and analysts the ability to build logical test flows through drag-and-drop.

ZAP-fiX test scripts are fully compatible with other environments, so it is easy to build end-to-end test cases that validate complete business processes. In addition, ZAP-fiX fully supports HP QTP’s active screen technology for easy functional validation and context-setting. It delivers 100% context-sensitive object recognition in supported environments while supporting multi-touch gestures such as swipes, zoom, and text entry.

• ZAP-fiX for HP QTP allows test automation using the ZAP-fiX Viewer or another emulator. It supports the centralization of all test-automation components and requires no instrumentation for any application under test (AUT). The ZAP-fiX Viewer is Windows-based software that instantly interacts with the AUT on the device and connects wirelessly to the device under test (DUT) through agents within the OS.

• ZAP-fiX for HP QC and HP ALM enables the enterprise testing of mobile apps by providing modular test coverage across multiple operating systems. Manual tests can be conducted on a PC with a standard keyboard and mouse, providing an ergonomically friendly environment. The ZAP-fiX Viewer extends the development, execution, and results validation of the test framework by providing snapshots of the mobile AUT’s expected results, and it runs the reports through HP QC or HP ALM. Manual tests can also be executed using the HP Sprinter capabilities in HP QC version 11.00 or HP ALM version 11.00 or later.

• ZAP-fiX for HP LoadRunner enables performance testing through a GUI-based approach, extending the test strategy to include load and scalability testing.

• ZAP-fiX for Application Performance Management extends end-user business processes in production to mobile applications and provides alerts whenever a service-level agreement (SLA) arises.
“Mobile application testing has become a vital competency within organizations looking to release enterprise mobile applications. ZAP Technologies has created a way to automate the testing capabilities of mobile applications conveniently from the tester’s desktop. With solutions such as ZAP-fiX, organizations are able to expand automated testing to validate mobile applications as part of their standard quality assurance practices.”
—Theresa Lanowitz, Founder and CEO, Voke Inc.

Is ZAP-fiX right for you?
ZAP-fiX is designed for organizations that deploy HP Quality Center, HP Application Lifecycle Management, HP QuickTest Professional, and HP LoadRunner in their application test environments. If you’re looking to introduce these HP software solutions into your QA environment, ZAP Technologies consultants can provide product training and mentoring. This solution is offered as a Maintenance as a Service (MAAS) model consisting of software licensing and remote-maintenance support through five distinct subscription programs—from Starter to Enterprise Plus—depending on your requirements and budget. ZAP Technologies will also provide an onsite or remote proof of concept.

Why ZAP-fiX?
With more and more mobile applications being developed and produced for revenue-generating initiatives, the challenge of maintaining the quality of these applications increases. ZAP-fiX software empowers QA organizations to test and monitor applications using HP software in an ergonomically friendly way—saving time, money, and resources.

About ZAP Technologies
ZAP Technologies is an HP Elite Partner and HP software reseller and service provider. ZAP Technologies has been developing and delivering leading consulting services—utilizing a variety of methodologies, products, and technologies—through HP Software for more than a decade. ZAP’s specialty is designing best practices around QA management, test automation, performance validation, and application management utilizing HP software products. ZAP experts are actively involved in and work closely with HP Software research and development and product marketing teams on the latest product innovations. Each ZAP expert is trained to design and deliver solutions to customers in a timely manner using ZAP product implementation.

About HP
As the world’s largest technology company, HP can provide complete solutions that encompass servers, storage, networking, and software. By partnering with ZAP Technologies, HP extends its breadth of capabilities to solutions that increase efficiency and reduce downtime.

To learn more
For more information about HP Quality Center, please contact your HP sales representative, or visit www.hp.com/go/quality.

To learn more about ZAP-fiX, visit www.zap-fix.com or contact your ZAP Technologies sales representative.