Mobile Test Automation
Trends & Tools Evaluation Criteria

The mobile test automation market has dramatically shifted during the last 5 years.

In the past, there were hundreds of mobile devices with a variety of proprietary OS. As a result automation often did not make sense as the commonality between different devices was minimal or nonexistent. In addition, the amount of applications was limited to very few mainly voice, SMS and MMS. Last but not least in the pre-smartphone period, there was great uncertainty regarding application performance over different mobile networks.

The recent entrance and domination of smartphones into the mobile device arena has changed this situation dramatically and made mobile test automation an absolute must with clear ROI for various reasons:

Small number of mobile OS create uniformity that enables to "create test once, run on multiple devices"

Nowadays, the mobile market has 4 main OS (Android, iOS, Blackberry and Windows Phone 7) that are applied to a wide range of handsets. This implied uniformity in the way an application looks across all devices that run the same OS. So, for example, an Android application would look practically identical on any Android mobile phone. Therefore, an application vendor can create a test on one android device and run – the very same test – on all Android devices (phone, tablet etc).

Recommended tool feature: same test can run on multiple devices

Open mobile OS require that handset vendors test the complete phone environment

Handset vendors – for example a phone developer using Android OS - needs to verify that the phone's basic functionality (such as Call, Contacts list etc) works properly. The need to test every time the same basic phone functionality can be easily automated.

Recommended tool feature: Ready-to-go test packages for basic phone functionality

Frequent updates of mobile OS mandate frequent releases of application versions

The mobile OS are frequently updated, patched etc. As a result, the application vendor needs to releases quite frequently new application versions to or to test the existing application version on the new mobile OS releases. As a result there is need for a quick and easy way to run the same test on the different OS versions.

Recommended tool feature: can run on any mobile OS version, including the most recent ones, without need to modify the test script

Highly competitive markets require short time to market and therefore efficient automation

The mobile application market is a highly competitive market and the ability to quickly release an app to the market is of utmost importance (average life span of mobile apps in app stores run around 60- days max). This requires short development time and – most importantly – short testing cycles that can release the product fully debugged to the market in not time. The ability to create automation tests quickly and efficiently requires Record & Debug capability.

Recommended tool feature: Recorder for quick test creation.

Typically, an application is developed for all 4 mobile OS and requires an automation tool that supports all

Most application vendors launch the same application on all or most of the mobile OS (Android, iPhone, Blackberry, Windows Phone 7). Therefore, it is of utmost importance that one automation tool will be able to handle testing on all mobile OS.

Recommended tool feature: support for iPhone, Android, Blackberry and Windows Phone 7.

Mobile automation should smoothly integrate into the existing automation frameworks such as QTP, C#, Java, Perl and Python.

A large portion of the mobile applications are desktop/web applications that are extended to the mobile arena. As a result, the tesitng of such applications is should be as integratoive as possible with the existing tesing environments such as QTP, C#, Java, Perl and Python.

Recommended tool feature: plugs into QTP, C#, Java, Perl and Python

Summary: Tools evaluation criteria for Mobile Automation

- ✓ same test can run on multiple devices
- ✓ Ready-to-go test packages for basic phone functionality
- ✓ can run on any mobile OS version, including the most recent ones, without need to modify the test script
- ✓ Recorder for quick test creation
- ✓ support for iPhone, Android, Blackberry and Windows Phone 7
- ✓ plugs into QTP, C#, Java, Perl and Python

About Experitest

Experitest Ltd is the developer of SeeTestMobile – a test automation tool for Android, iPhone, iPad, Blackberry and Windows Phone 7. SeeTest mobile is fully integrative to QTP, C#, Java, Perl and Python. SeeTest Mobile is the market leader in mobile test automation with fortune 500 customers such as NYSE, Cisco, Marvell, BWIN, Orange, McAfee, Sky and more. Download a free trial at http://experitest.com/download/