M-eux Test automates:

- Functional Testing
- Wireless Service Testing
- Field Tests of services and devices.
- Performance checks of wireless services
- End-to-End testing: check the service from the device through the delivery platform.

M-eux Test Supports:

- Web-based applications
- GUI-based applications
- · Wireless services
- Mobile OS verifications



Automate test cases on Android.

Automated testing of Android applications

Jamo Solutions provides tools that automate the testing effort for mobile applications running on the Android platform.

The tool "M-eux Test' is a test automation environment that ensures:

- <u>The re-use of test cases on different hardware platforms</u>. Today Android devices are available from different manufacturers. All these Android devices run the same operating system but have different hardware characteristics like screen resolution and keys. The scripts of M-eux test are hardware independent. Once implemented, a script can be re-used across different models.
- <u>The re-use of test cases across different version of the application under test.</u> The scripts made by M-eux Test can easily be re-used to ensure that existing functionality is still working in new versions of the application under test. This is called regression testing.
- <u>Easy creation and maintenance of the test scripts</u>. The technology applied by Jamo Solutions is easy to use, the scripts are readable and easy to maintain and the expertise gained by the usage of M-eux Test can be re-applied for testing applications on other platforms.

The technology platform of M-eux Test

ensures the above requirements by supporting:

- <u>Testing through the user interface of the application</u>. Just like a manual tester will describe his test cases by using the user interface elements, the automated test script is verifying and driving the user interface elements of the mobile application under test. By recognizing the user interface elements, the script becomes hardware independent. If a new version of the application under test is released, then preserved functionality can be tested with the old scripts. The tool will take care of cosmetic changes like a menu item that is now in a new position. By using the user interface elements, the script becomes also readable for a non-technical tester and the script is easy to maintain.
- Extension of existing scripting environments. M-eux Test did not implement its own scripting environment. In order to ensure a fast learning curve and to ensure re-use of gained expertise, M-eux Test is an extension of existing scripting environments. For users with a test engineering background, M-eux Test extends the leading test automation tool QuickTest Professional from Hewlett Packard. For users with a developer's background, M-eux Test extends Visual Studio from Microsoft.

Android GUI objects

M-eux Test is an all-round player and recognizes most of the user interface objects of Android-based applications as long as these objects are developed using the Android

M-eux Test - The mobile device test automation tool:

Extends well known tools like QuickTest Profession from HP and Visual Studio from Microsoft

Supports the real actual device for test script creation and replay.

One script can replay against multiple devices. For example one script can send a SMS from one device and check the correct arrival on a second device.

Supports access to devices located remotely using the WAN connector.

Contains a local scheduler to plan the execution of test cases against the connected devices.

Support the real device and the emulators. Create one scripts and re-use for all devices running the same Mobile Operating System.

SDK.

All Android view/widget objects are supported out of the box. User interface objects that are derived from these views/widgets, are automatically mapped to these views/widgets.

Android System verification

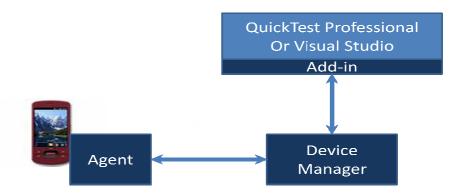
Special functions are implemented to verify the Android operating system. The tester can at any time verify for example:

- The number of processes running.
- The memory consumption
- The memory card space consumption
- The battery status

Special functions are foreseen to launch and verify the mobile connections:

- Phone calls
- SMS messages
- E-mail messages
- MMS messages

Tool Architecture



An agent is installed on the mobile device. The agent is responsible for the recording and the replay of the test commands The Device is connected to the PC using WIFI. The Device Manager is the gateway between the connected devices and the extension inside QuickTest Professional or Visual Studio. The architecture allows the connection of multiple devices. One test script can execute against multiple devices.

Support level

Complete support is provided for the Android emulators and rooted devices. If the device is not rooted, then support is provided for those applications that have been made testable by calling functionality from a jar file provided by Jamo Solutions.

The supported editions are listed in following table:

Device Operating System	Supported versions		
Android	Android version 1.5		
	 Android version 1.6 		
	 Android version 2.0 		

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