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 Windows CE.

Automated testing of Windows CE applications
Jamo Solutions provides tools that automate the testing effort for applications running on the Windows CE platform.
The tool "M-eux Test' is a test automation environment that ensures:

- *The re-use of test cases on different hardware platforms*. Today Windows CE devices can have different hardware characteristics. The scripts of M-eux test are hardware independent. Once implemented, a script can be re-used across different models.
- *The re-use of test cases across different version of the application under test.* 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.
- *Easy creation and maintenance of the test scripts.* 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 providing:

- *Testing through the user interface of the application.* 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 Windows CE 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.

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.

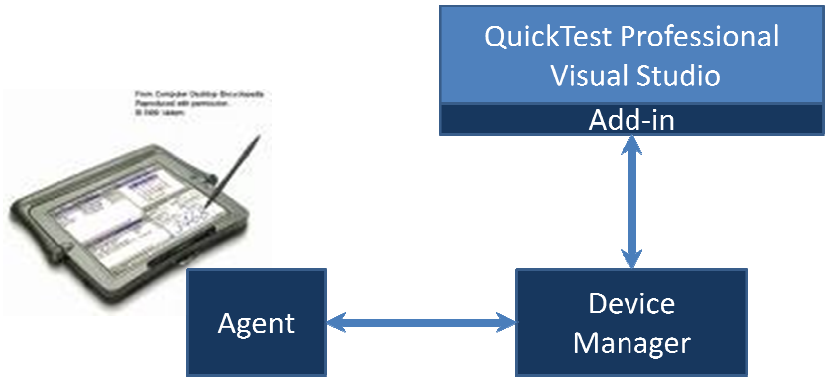
Supports access to devices located remotely using the WAN connector.

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.

Test tool architecture

Following figure illustrates the test tool architecture:



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

Windows Mobile CE objects

M-eux Test is an all-round player and recognizes most of the user interface objects of a Windows CE application as long as the user interface objects are developed following the Microsoft guidelines:

• All Microsoft Foundation Class objects are supported. This makes that the pre-installed applications can be included in the test cases.
• M-eux Test can be configured to deal with user defined objects that are derived from the Microsoft standard objects.
• M-eux Test has extended support for .Net Compact Framework objects. The objects are automatically recognized following their base .Net control class. Attributes and methods associated to the .Net object implementing the user interface object can be accessed from the script.
• The definition of how to recognize the user interface objects is customizable.

Supported editions

Device Operating System	*Supported versions*
Windows CE	• Windows CE 5.0 o ARM and X86 based • Windows CE 6.0 o ARM and x86 based

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