Testkit-Lite User Guide

Contents

1. Introduction

This document gives an overview of Testkit-Lite and guides how to run test cases for Core and WebAPI components on Testkit-Lite.

2. Overview

Testkit-Lite is a test runner with command-line interface. It has the following functions:

- Accepts .xml test case descriptor files as input
- Drives automatic test execution
- Provides multiple options to meet various test requirements

3. Prerequisites

Before using Testkit-Lite, ensure that:

- Two packages have been installed: **python** and**python-lxml**.

You can run the following command to install the packages:

```
$sudozypper -n install python
$ sudozypper -n install python-lxml
```

Note: **python** should be version 2.7 or later.

- An .xml test case descriptor file is ready.

Testkit-Lite recognizes and drives test cases through an.xml test case descriptor file, which describes test script, program, or HTML web test page. For details on how to create a valid .xml test case descriptor file, see the *Testkit-Lite Quick Start*.

4. Installing Testkit-Lite

To install Testkit-Lite from source code, perform the following steps:

1) Check out the latest source code:

```
$ git clone git@github.com:testkit/testkit-lite.git
```

2) Navigate to the work directory **testkit-lite**:

```
$ ./pack
$ rpm -ivhtestkit-lite-x.x.x-x.noarch.rpm
```

5. Testkit-Lite Options

- Mandatory options

Option	Description
-f<test_descriptor_file>.xml	Specify one or more test case descriptor files.
-e<Web Runtime Environment>	Specify Web Runtime Environment to run WebAPI testing, for

	example,*WRTLauncher<test_widget_name>*. Note: Only required for WebAPI testing.

Table 5-1 Mandatory options

- Optional options

Option	Description
-A	Testkit-Lite runs only auto test cases.
-M	Testkit-Lite runs only manual test cases.
-o<test_result_file>	Specify the name of result file. Testkit-Lite locatesthe result file under **/opt/testkit/lite/latest/** by default.
-E	Specific test engine.
-D	Dry-run the selected test cases.
--fullscreen	Testkit-Lite runsWebAPItest cases in full screen mode.
--non-active	Disable the ability to set the result of core manualcases from the console
--enable-memory-collection	Enable the ability to release memory when the freememory is less than 100M
--version	Show version information

Table 5-2 Optional options

6. Running Testkit-Lite

- Show the help information:

```
$ testkit-lite  --help
```

- Obtain statistics information from a test case descriptor file without testing:

```
$ testkit-lite  -f  /PATH/TO/<test_descript_file>.xml  -D
```

- Run non-WebAPI test cases:

```
$ testkit-lite  -f /PATH/TO/<test_descriptor_file>.xml
```

- Run WebAPI test cases:

```
$ testkit-lite  -e  "WRTLauncher<widget _name>" -f /PATH/TO/<test_descriptor_file>.xml
```

- Run both non-WebAPI and WebAPI test cases:

```
$ testkit-lite  -e  "WRTLauncher<widget _name>" -f
/PATH/TO/<test_descriptor_file_for_webapi>.xml/PATH/TO/<test_descriptor_file_for_non_web
api>.xml
```

- Run test cases with multiple test case descriptor files:

Testkit-Lite can accept as many test case descriptor files at one time as you want. You can type all test case descriptor files sequentially after the '**–f**' option:

```
$ testkit-lite  -f  /PATH/TO/<test_descript_file>.xml, …, /PATH/TO/<test_descript_file_more>.xml
```

- Run a subset of test cases in test case descriptor file with filters
  Youcan select and run a subset of test cases from the test case descriptor file by using filters.

Filter	Description
--type	Filter test cases by test case type: • functional_positive • functional_negative • security • performance • reliability • portability • maintainability • compliance • user_experience
--priority	Filter test cases by test case priority: • P0 • P1 • P2
--category	Filter test cases by test case category • IVI • Netbook • TV • Mobile
--status	Filter test case by test case status: • ready • approved • designed
--suite	Filter test case by test suite
--set	Filter test case by test set
--id	Filter test case by test case id
--component	Filter test case by test case component

Table 6-1 Filtering test cases

You can assign multiple values to each filter. For example, to select test cases of both P0 and P1 priority, run the following command:

```
testkit-lite  --priority P0 P1 -f <test_descriptor_file>.xml
```

You can use a group of filters at one time, because Testkit-Lite performs the AND logic when selecting test cases. For example, to select test cases by both **priority**and **component**filters, run the following command:

```
testkit-lite  --priority P0 P1 --componentcomp1 comp2  -f <test_descriptor_file>.xml
```

You can freely combine all those usages in one command to meet your test requirement. For example, to select and run test cases from two test case descriptor files by filters of **priority, component**and**status** run the following command:

```
testkit-lite  --priority P0 P1 --componentcomp1 comp2 --status ready -f
<test_descriptor_file_1>.xml <test_descriptor_file_2>.xml
```

7. Checking Test Reports

After Testkit-Lite completes executing all test cases successfully, you canobtain an.xml test reportfrom **/opt/testkit/lite/latest**.

.xml Test Report

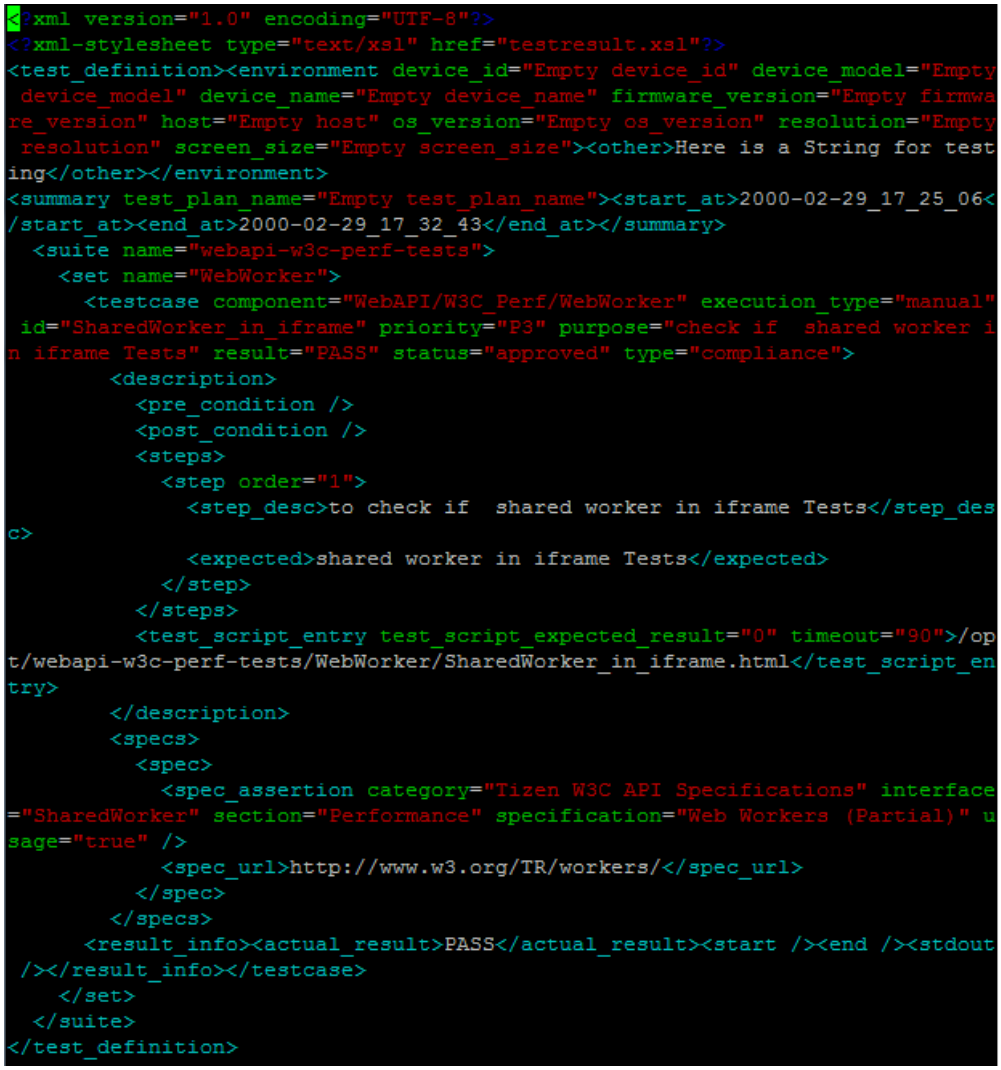

Figure 7-1 .xml test report

8. Viewing Test Reports

Test report can be viewed in HTML format, so the data in the xml result file looks more human friendly.

Please follow the following steps to view test report:

- copy files: application.js back_top.png jquery.min.js testresult.xsl tests.css under directory /opt/testkit/lite/xsd/
- put the files from step 1) under the same directory as the xml result file
- open xml result file with a web browser(IE, Chrome or Firefox)

ViewTest Report in htmlformat

Test Report

Device Information	
Device Name	Empty device_name
Device Model	Empty device_model
OS Version	Empty os_version
Device ID	Empty device_id
Firmware Version	Empty firmware_version
Screen Size	Empty screen_size
Resolution	Empty resolution
Host Info	Empty host
Others	Here is a String for testing

Test Summary	
Test Plan Name	temp_plan
Tests Total	92
Test Passed	9
Test Failed	54
Test N/A	0
Test Not Run	29
Start time	2012-10-30_11_07_40
End time	2012-10-30_11_08_49

Test Summary by Suite

Suite	Passed	Failed	N/A	Not Run	Total
tts-bluez-tests	9	54	0	29	92

Figure 8-1 View Test Report in html format