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:

- Three packages have been installed: **Python**, **python-lxml**, and **man**.

You can run the following command to install the packages:

```
$ sudo zypper -n install python
$ sudo zypper -n install python-lxml
$ sudo zypper -n install man
```

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**:

```
$ python ./setup.py build && pythoh ./setup.py install
```

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 locates the result file under **/opt/testkit/lite/latest/** by default.
-E	Specific test engine.
-D	Dry-run the selected test cases.
--fullscreen	Testkit-Lite runs WebAPI test cases in full screen mode.

Table 5-2 Optional options

6. Running Testkit-Lite

- Show the help information:

```
$ testkit-lite  --help        #show help info
```

- 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 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

  You can select and run a subset of test cases from the test case descriptor file by using filters.

  Table 5-3 lists the 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 category: • Netbook • IVI • TV
--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 5-3 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 **category** filters, run the following command:

testkit-lite --priority P0 P1 --category Netbook IVI -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, category** and **status**, run the following command:

testkit-lite --priority P0 P1 --category Netbook IVI --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 can obtain .xml and text test reports from **/opt/testkit/lite/latest**.

- **.xml Test Report**

Figure 7-1 .xml test report

- **Text Test Report**

```
==================================TestReport====================================
                                                          TYPE PASS FAIL  N/A
--/usr/share/blts-bluetooth-tests/tests.xml                XML    2    0    0
  `---blts-bluetooth-tests                                SUITE    2    0    0
      `---bt-1dev-tests                                     SET    2    0    0
          |---HAL-Bluetooth drivers and userspace check    CASE    1    0    0
          `---HAL-Bluetooth scan                           CASE    1    0    0
```

Figure 7-2 Text test report