Testkit-Manager User Guide

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1. Overview

Testkit-Manager, a Graphical User Interface (GUI) front-end in browser, manages auto test cases execution remotely and provides unified web UI to help manual tests execution.

Testkit-Manager has the following features:

- You can filter test cases as per their property value, including architecture, version, category, priority, status, execution type, test suite, type, test set, and component. After that, you can view the detailed information of the test cases.
- You can save the detailed test case information as a test plan, and load, delete, or execute the test plan.
- You can install, update, and delete test case packages.
- You can execute both auto test cases and manual test cases as well as add test result to manual test cases.
- After executing test cases, Testkit-Managergenerates a report automatically. After that, you can view, compare, delete, submit, and export the report.

2. Installation

- 1. git source code
 - git clone https://github.com/testkit/testkit-manager.git
- 2. build rpm package
 - cd testkit-manager; ./pack
- 3. install dependence packages on host
 - Host (ubuntu11.10)
 - sudo apt-get install libxml-simple-perl
 - sudo apt-get install libdigest-sha-perl
 - sudo apt-get install libjson-perl
 - sudo apt-get install libio-pty-easy-perl
 - sudo apt-get install libxml-libxslt-perl
 - sudo apt-get install cpanminus
 - sudocpanm JSON
 - sudo apt-get install rpm
 - Host (fedora17)
 - sudo yum install wget
 - sudo yum install perl-libxml-perl
 - sudo yum install perl-App-cpanminus
 - sudo yum install perl-Digest-SHA
 - sudo yum install perl-XML-Simple
 - sudo yum install perl-XML-LibXSLT
- 4. install testkit-manger on host
 - Host (ubuntu11.10)
 - sudo rpm -ivhtestkit-manager-x.x.x-x.noarch.rpm --nodeps
 - Host (fedora17)
 - sudo rpm -ivhtestkit-manager-x.x.x-x.noarch.rpm
- 5. install 'sdb' on host
 - sudocp<somewhere>/sdb /usr/bin
 - sudochmod 755 /usr/bin/sdb
- 6. connect device
 - power on device
 - connect USB
 - type command 'sudosdb devices' from the host to check if the device is really connected
- 7. configure repository of test packages

Please put test packages to /home/package

If you have your own place to save the test packages, you also can configure the repository of test packages in configuration file '/opt/testkit/manager/CONF'

repo url=<repo address>

<repo address> can be a remote server address or a local path on the host machine

- 8. startup
 - type command 'sudo /opt/testkit/manager/webapps/bin/testkit start.pl' from the host
 - open web page on browser: http://<test-machine-name>:8899

3. Customizing Tests

3.1 Filtering Test Cases

You can filtertest casesaccording to their property values:

① Architecture ② Version ③ Category ④ Priority ⑤ Status ⑥ Execution Type ⑦ Test suite ⑧ Type ⑨ Test set ⑩ Component

To filter test cases, perform the following steps:

- 1. Login to http://localhost:8899.
- 2. Click the **CUSTOM** tab.

When the tab page refreshing, all the buttons are disabled, and the progress bar is displayed on the right top of the tab page, as shown by [1] in Figure 3-1.



Figure 3-1 CUSTOM tab page in loading progress

After the tab page is refreshed, some buttons are enabled, and the progress bar is hidden. The tab page:

- DisplaysArchitecture, Version, and Advancedon top, as shownby [1] in Figure 3-2.
- Lists installed packages, as shown by [2] in Figure 3-2.
- Lists uninstalled or later-version packages which are scanned from repos, as shown by [3] in Figure 3-2.

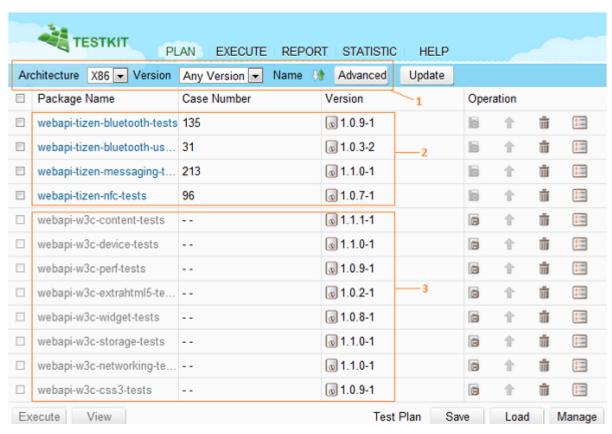


Figure3-2 CUSTOM tab page

3. Click **Advanced**.

Options display, as shown by [2] in Figure 3-3.The **Advanced** button updates to**Normal**,as shown by [1] in Figure 3-3.If you click **Normal**, options are hidden.

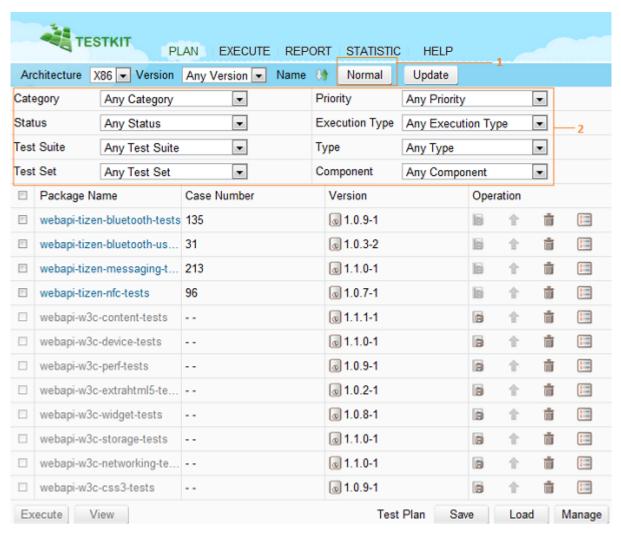


Figure 3-3Options on the Custom tab page

4. Take the **Priority** and **Execution type** options for example.

Note: Assume that all the 10 options' value are initial values "Any ***". All the installed test case packages display.

(1). Select **P1** from the **Priority** checkbox.

The test case packages display, which include test cases whose priority is P1, as shown in Figure 3-4.

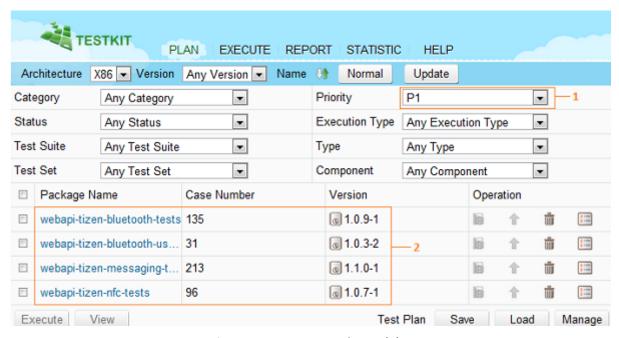


Figure 3-4Test case packages (1)

(2). Select auto from the Execution type check box.

The test case packages display, which include the test cases whose priority is P1 and whose Execution type is auto, as shown in Figure 3-5.

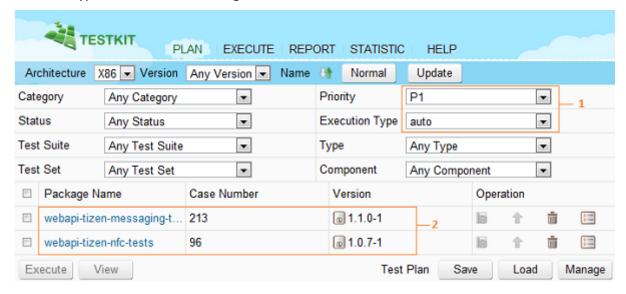


Figure 3-5 Test case packages (2)

Note: You can select other options in the same way. All the required test case packages display.

5. Select a test case package to test, as shown in Figure 3-6.

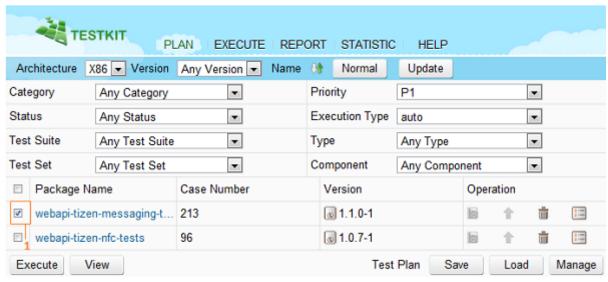


Figure 3-6Selecting a test case package

3.2 UsingTest Plan

A test plansaves the information of filtered test cases for future test. You can save, load, or manage a test plan.

3.2.1 SavingTest Plan

To save a test plan, perform the following steps:

- 1. Filter test case packages. For details, see section 3.1.
- 2. Click Save.

Save operations display, as shown by [2] in Figure 3-7.The **Save** button updates to**Close**, as shown by [1] in Figure 3-7.If you click **Close**, the save operations are hidden.

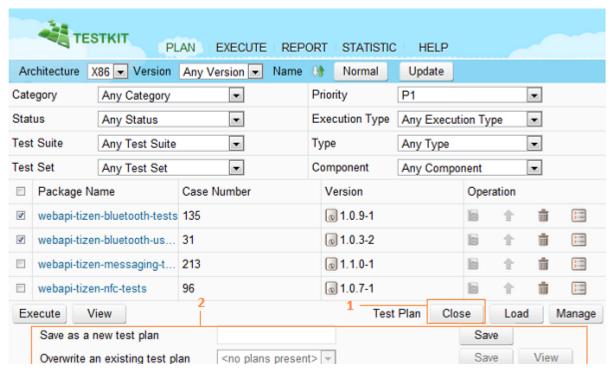


Figure 3-7Clicking the Save button

3. Enter the test planname in text box [1]. Then click **Save**, as shown by [2] in Figure 3-8.

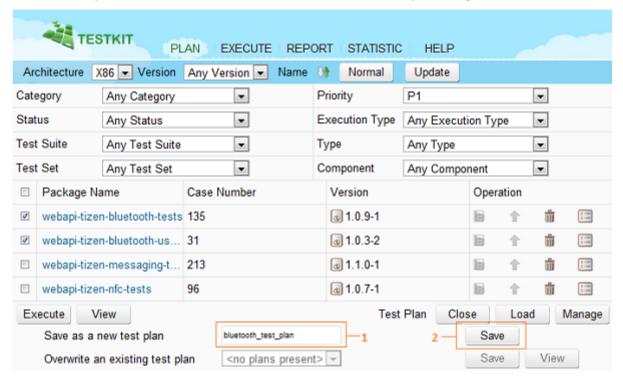


Figure 3-8Entering thetest plan name(1)

4. An alert displays, as shown in Figure 3-9. Click**OK**to save the test plan.

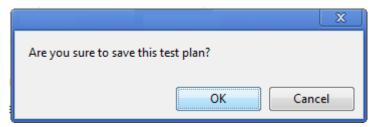


Figure 3-9Confirmation dialog box (1)

After the test plan is saved successfully, the test plan name displays, as shown by [1] in figure 3-10.

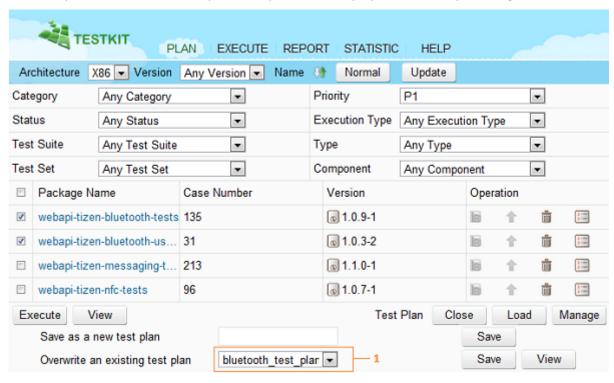


Figure 3-10Entering the test plan name (2)

5. If there hasbeen a test plan whose name is the same as the enteredtest plan name, as shown in Figure 3-11:

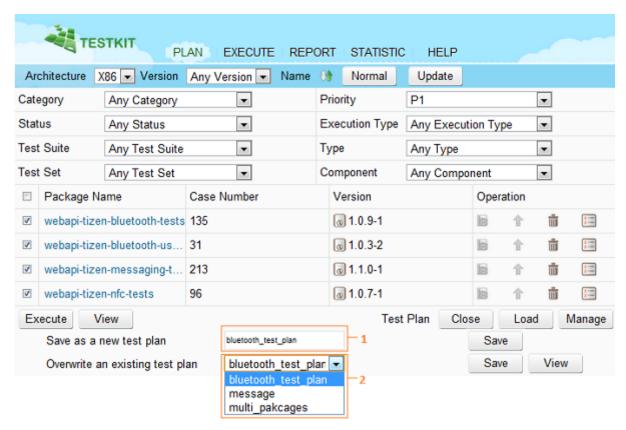


Figure 3-11Saving an existing test plan name

Click **Save**. A dialog box pops up, reading "Test plan: <Test plan name input> exists, Are you sure to overwrite it?"

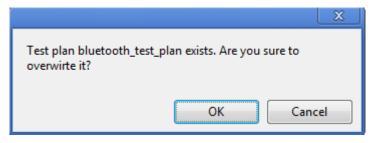


Figure 3-12Confirmation dialog box (2)

- ClickOK. → Thetest planbluetooth_test_planoverwrites the existing one.
- Click Cancel. → The test planbluetooth_test_plan is not saved.
- 6. Select a test plan that you want to view, as shown by [1] in Figure 3-13. Then click **View**, as shown by [2] in Figure 3-13.

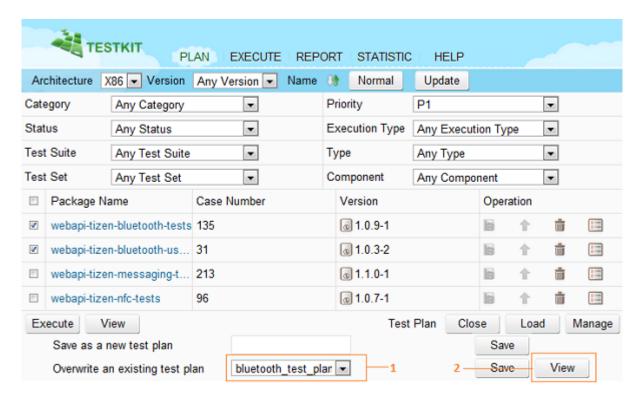


Figure 3-13Viewingtest plan

- 7. A popup page displays, as shown in Figure 3-14.
 - View test plan name, as shown by [1].
 - View packages name, as shown by [2].
 - View the filtered value, as shown by [3]. If the filtered value is "Any ***", it displays as "--".
 - Click **Close** to close the popup page.

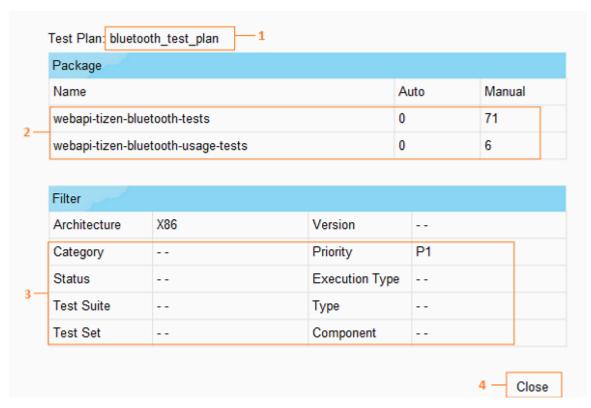


Figure 3-14Viewing popup page

Note:

Do not leave **test planname** blank. If you click **Save** without entering a test plan name, an alert pops up, as shown in Figure 3-15. Click **OK**.

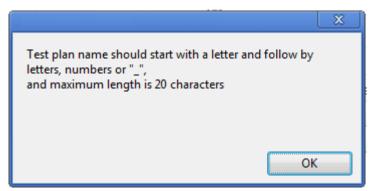


Figure 3-15Confirmation dialog box (3)

3.2.2 LoadingTest Plan

To load a test plan, perform the following steps:

1. Click **Load**, as shown in Figure 3-16.

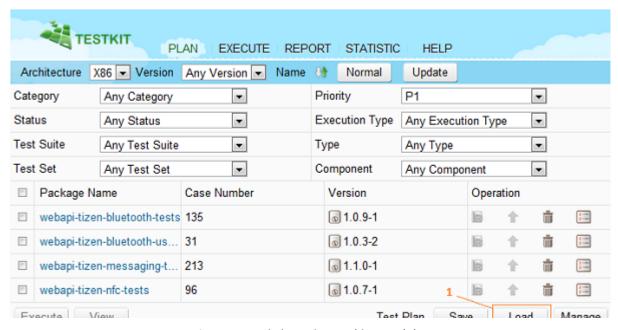


Figure 3-16Clicking theLoad button(1)

2. Load operations display, as shown by [2] in Figure 3-17. The **Load** button updates to **Close**, as shown by [1] in Figure 3-17. If you click **Close**, load operations are hidden. Select a test plan name, and click **Load**.

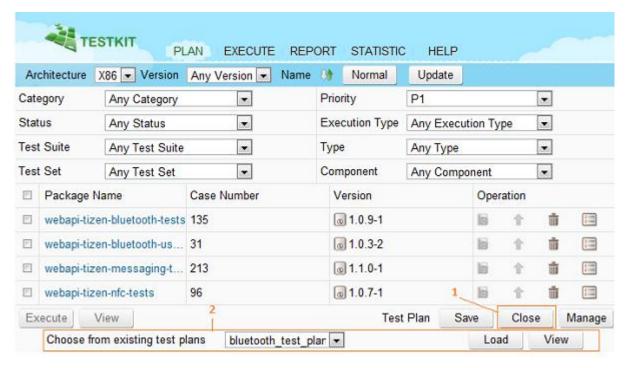


Figure 3-17Clicking theLoad button(2)

3. The test planis loaded, as shown in Figure 3-18.

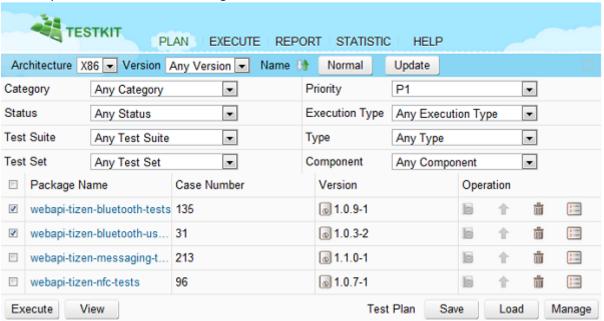


Figure 3-18 Test plan loaded

4. Click the **View** button to view thetest plan, as shown in Figure 3-17.For details, see step 7 in section 3.2.1.

3.2.3 ManagingTest Plan

Tomanage a test plan that has been saved, perform the following steps:

1. Click Manage, as shown in Figure 3-19.

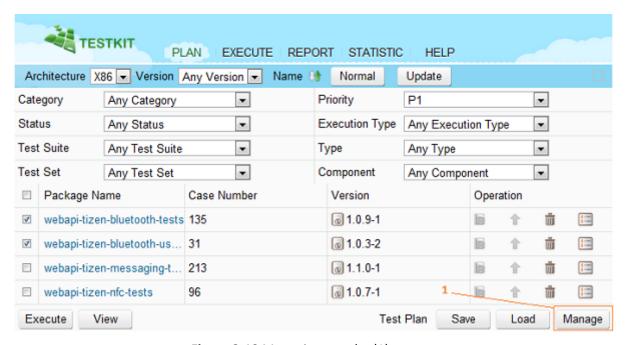


Figure 3-19 Managingtest plan(1)

2. Manage operations display, as shown by [2] in Figure 3-20. The **Manage** button updates to **Close**, as shown by [1] in Figure 3-20. If you click the **Close** button, the manage operations are hidden.

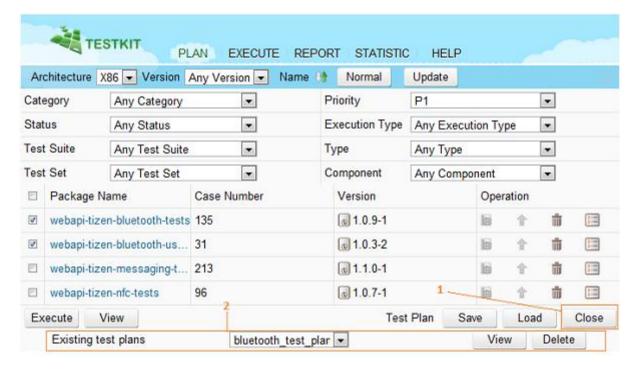


Figure 3-20 Managingtest plan(2)

3. Select atest plan name, and click the View button. View popup page will display. For details, see

step 7 in section 3.2.1.

4. Select one test plan name, and click the **Delete** button. An alert pops up, as shown in Figure 3-21. Click **OK**. The test plan is deleted.

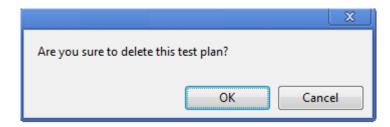


Figure 3-21Confirmation dialog box (4)

3.2.4 ExecutingTest Plan

- Execute an existingtest plan:
 - 1. Typethe test planname and click**Load**.

Thetest planis loaded and the page automatically refreshes.

- 2. Click **Execute**. The page refreshes and the test planis executed.
- Execute a temporary test plan:
 - 1. Select a test case package. For details, see section 3.1.
 - 2. Click **Execute**. The page refreshesand the test planis executed.

3.3 Useful Features

3.3.1 ViewingTest Case Information

To view test case information, perform the following steps:

1. Click **view**. The page refreshes, as shown in Figure 3-22. Current View method is displayed, as shown by [1] in Figure 3-22. Click **List View** to view test cases in list view, as shown by [2] in Figure 3-22.

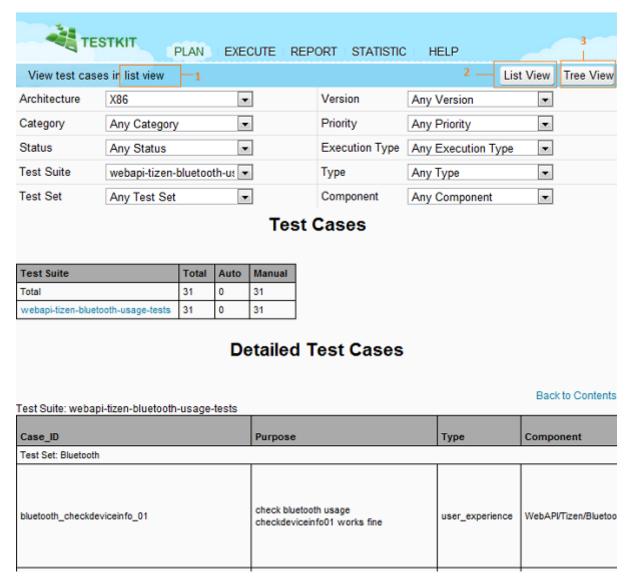


Figure 3-22Viewing test cases in list view

2. Click the **Tree View** button to view test cases in tree view, as shown by [3] in Figure 3-22. The page refreshes, as shown in Figure 3-23.

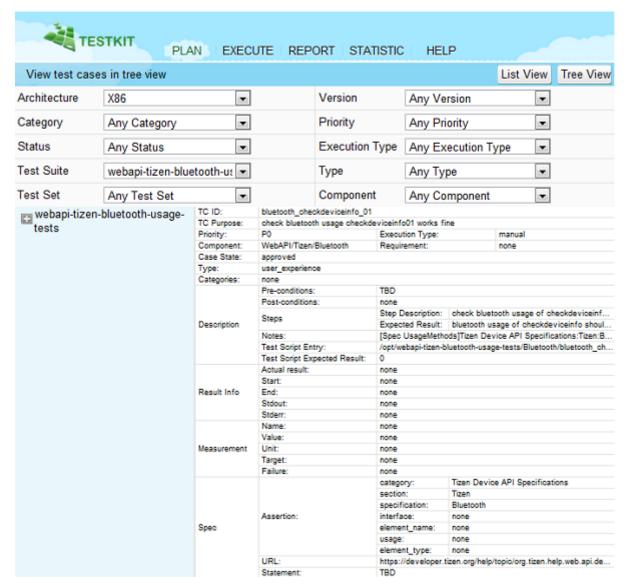


Figure 3-23 Viewing test cases in tree view

3. Click the test case name. The detailed test case information displays in the right pane of the page.

3.3.2 SortingTest Case Packages

Click the icon. The test case packages are sorted.

Note: You can click the iconagain. The test case packagesare reversely sorted.

Figure 3-24 shows the details.

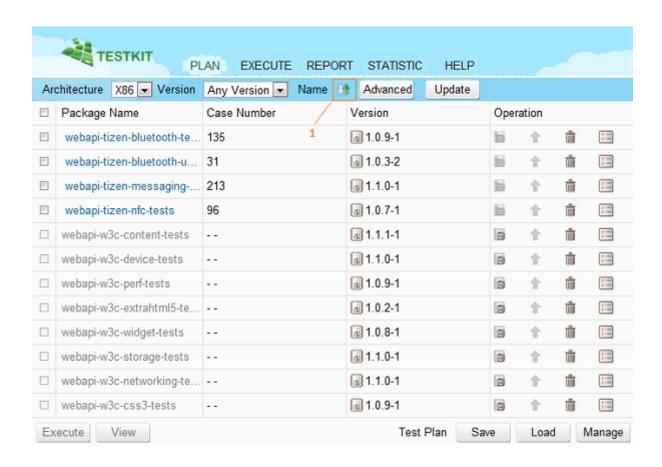


Figure 3-24Sorting test case packages

3.3.3 DeletingTest Case Package

Click the icon, as shown in Figure 3-25.

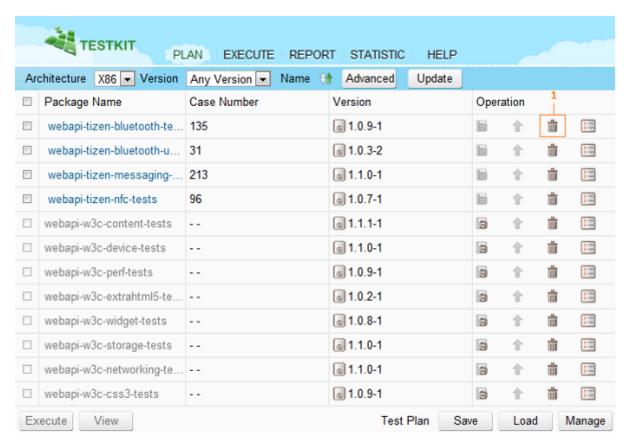


Figure 3-25 Deleting test case package

A dialog box is displayed, asking for your confirmation. Click **OK**.

3.3.4 ListingTest Case Package Information

Click thetest case package name. The detailed information displays, as shown in Figure 3-26.

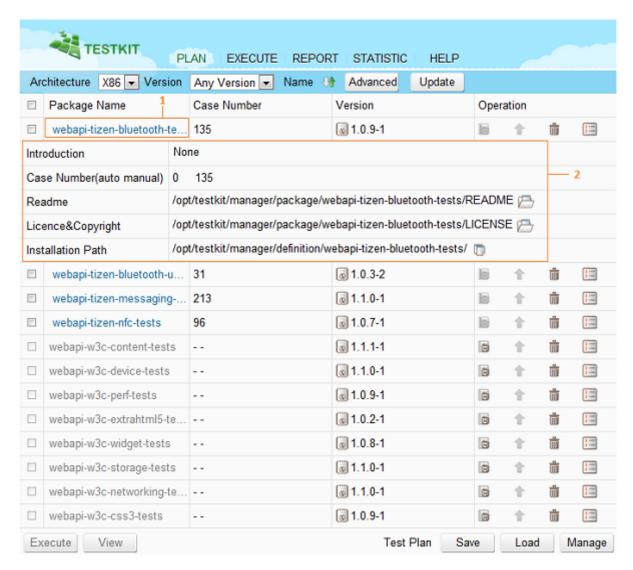


Figure 3-26Detailedtest case package information

3.3.5 Update package list from repo

Click Update button ,testkit-manager will scan package list from repo, and list all the packages that not installed , we can click install icon to install these packages. At the same time, if there are newer version for the package which has been installed from repo, the update icon for this package will be enabled. We can click update icon to update this package to the latest version, as shown in Figure 3-27 and Figure 3-28.

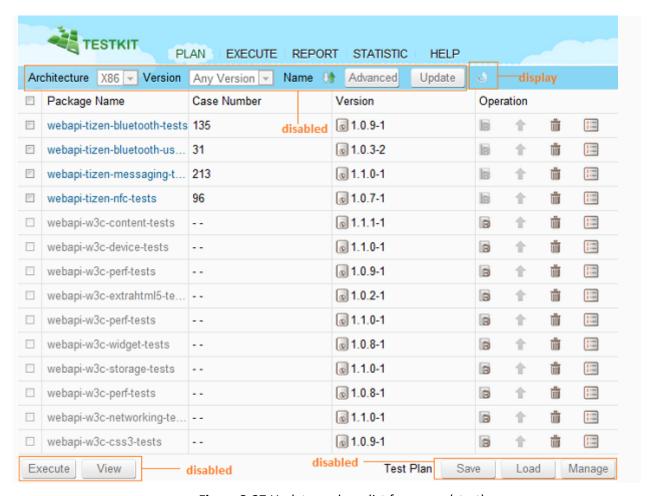


Figure 3-27 Update package list from repo(start)

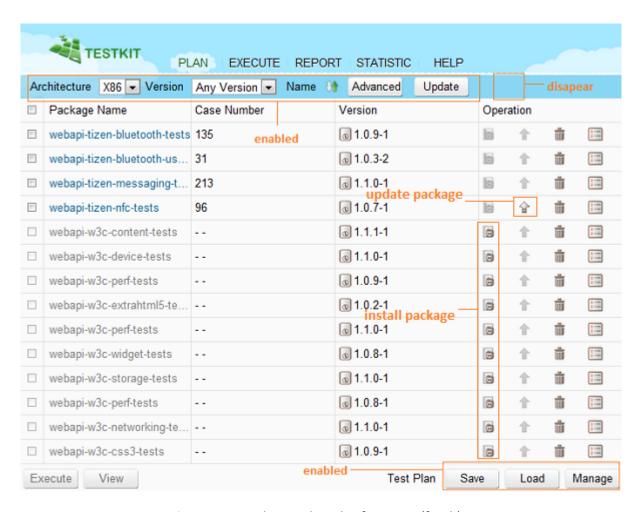


Figure 3-28 Update package list from repo(finish)

4. Executing Test Cases

4.1 Executing Auto Test Cases

You can use either of the following two ways to execute test cases:

- Filtertest cases or load test plan (with auto test cases), and clickExecuteon the CUSTOMpage.
- Select a test planand click Execute on the EXECUTEpage.

The test plan runs with log. When the profile finishes running, a test report generates automatically. Click the **Stop** button to stop executing the test plan.

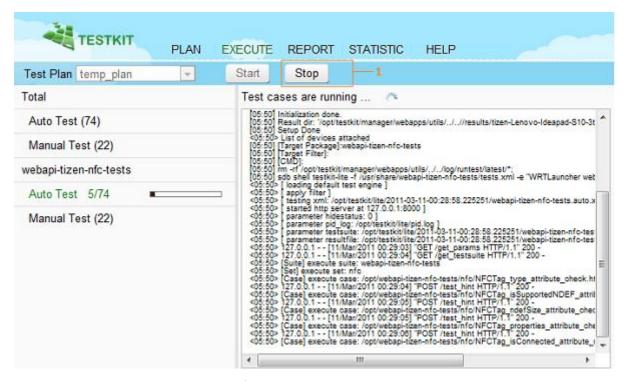


Figure 4-1 Auto test report

4.2 Executing Manual Test Cases

1. When the test plan (with manual test cases) finishes running, the page refreshes, as shown in Figure 4-2. Then, you can add the result of manual test cases:

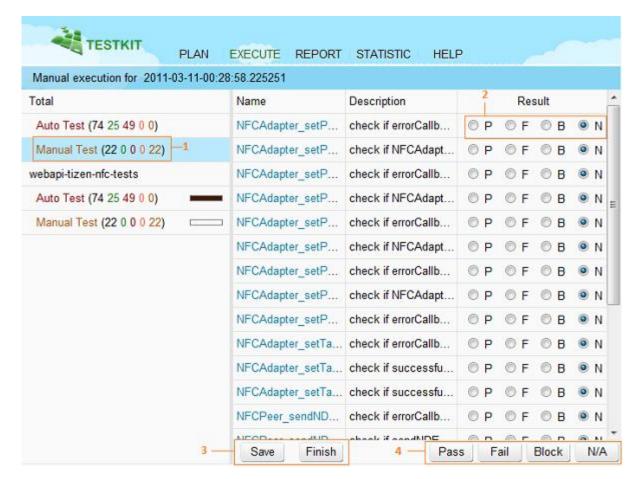


Figure 4-2Manual test cases

- Click **Manual Test**. All the manual test cases display on the right pane of the page.
- Run the test cases manually, obtain the results, and then selectPass, Fail, Block or N/A for the test results.
- Click Save.
- Click Finish to complete the execution.
- 2. Then, the **REPORT** page refreshes and displays, as shown in Figure 4-3. Current View method is displayed, as shown by [1] in Figure 4-3. Click **Tree View** to view test report in tree view, as shown by [2] in Figure 4-3.

Test Report

2

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	96	
Test Passed	25	
Test Failed	49	
Test N/A	0	
Test Not Run	22	
Start time	2011-03-11_00_28_58	
End time	2011-03-11_00_31_59	

Test Summary by Suite

I	Suite	Passed	Failed	N/A	Not Run	Total
ĺ	webapi-tizen-nfc-tests	25	49	0	22	96

Detailed Test Results

Back to Contents

Test Suite: webapi-tizen-nfc-tests

Case_ID	Purpose	Result	Stdout
Test Set: nfc			
ByteArraySuccessCallback_onsuccess	check if method onsuccess which belongs to interface ByteArraySuccessCallback can be called successfully	FAIL	###Test###check if me ByteArraySuccessCall successfully###Error# expected true got false tizen-nfc-tests/res/wgt tests/resources/testha assert_true@file:///opt/ tests/res/wgt/opt/wg-tiz @file:///opt/apps/org- tizen-nfc-tests/resourc- tizen-nfc-tests/resourc-

Figure 4-3 Viewing test report in list view

3. View test report in tree view.

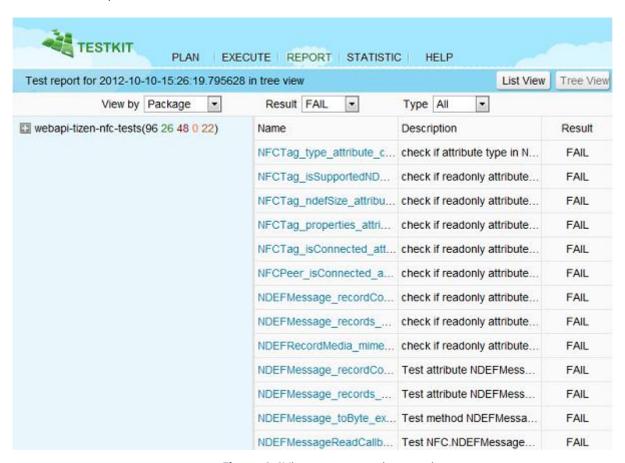


Figure 4-4View test report in tree view

5. Viewing Report

5.1 ViewingSummary Reports

Click the icon to view summary reports, as shown in Figure 5-1.



Figure 5-1Summary reports

You can view summary information, including:

- Test environment
- Total number of test cases
- Number of passed, failed, and blocked test cases
- Test log

You can also click:

- ✓ to view detailed reports

5.2 ViewingTest Report in List View

After the icon shown by [1] in Figure 5-1 is clicked, the page refreshes, as shown in Figure 5-2.

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	

Fest Summary		
Test Plan Name	temp_plan	
Tests Total	96	
Test Passed	25	
Test Failed	49	
Test N/A	0	
Test Not Run	22	
Start time	2011-03-11_00_28_58	
End time	2011-03-11_00_31_59	

Test Summary by Suite

I	Suite	Passed	Failed	d N/A Not Run		Total
I	webapi-tizen-nfc-tests	25	49	0	22	96

Detailed Test Results

Back to Contents

Test Suite: webapi-tizen-nfc-tests

Case_ID	Purpose	Result	Stdout			
Test Set: nfc						
ByteArraySuccessCallback_onsuccess	check if method onsuccess which belongs to interface ByteArraySuccessCallback can be called successfully	FAIL	###Test###check if me ByteArraySuccessCall successfully###Error# expected true got false tizen-nfc-tests/res/wgt tests/resources/testha assert_true@file://opt/webt @file://opt/apps/org.tiz nfc-tests/nfc/ByteArra sten@file://opt/apps/org.tiz			

5.3 Viewing Test Report in Tree View

Click the Tree View button in Figure 5-2. The page refreshes, as shown in Figure 5-3.

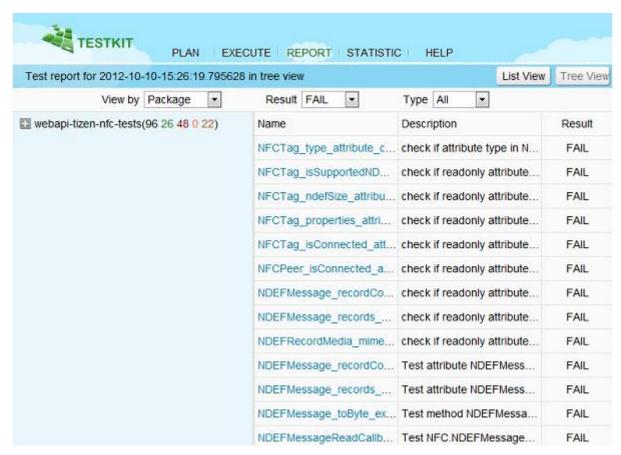


Figure 5-3Viewing test report in tree view

1. Select **Package** from the **View by:** drop-down list box.

Note: You can view the detailed reports by "Packages", "Component", or "Test type". The following steps use "Packages" as an example.



Figure 5-4Filtering detailed reports

- 2. Filter a test report by selecting **Result** and **Type**, by the same way as step 1.
- 3. Click the test case name to view its detailed information.

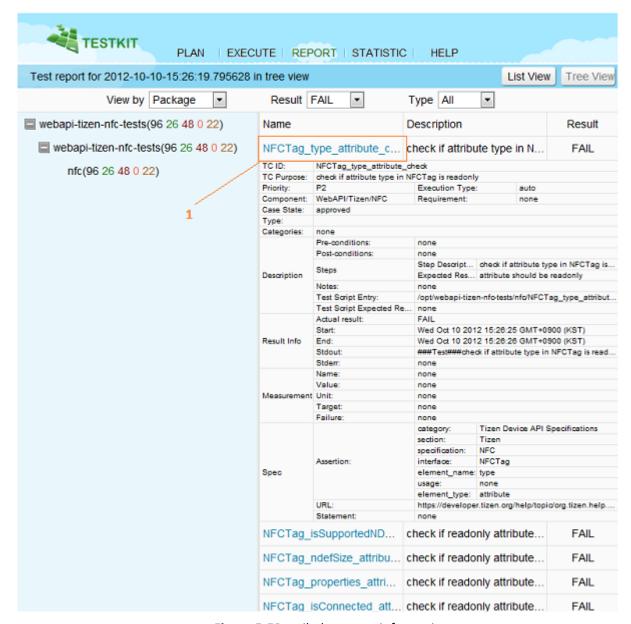


Figure 5-5Detailedtest case information

5.4 Useful Features

5.4.1 SubmittingReport

To submit a test report to QA test tools, perform the following steps:

- 1. Login tohttp://localhost:8899/.
- 2. Click the REPORT tab.

The **REPORT** tab page displays, as shown in Figure 5-6



Figure 5-6Refreshed REPORT tab page

3. Select one or multiple check boxes.

The buttons **Compare and Delete** become available.

4. Click **Submit**, as shown [1] in Figure 5-7.



Figure 5-7Refreshed REPORT tab page

5. The page refreshes, as shown in Figure 5-8.



Figure 5-8Refreshed REPORT tab page

- (1). Type server name in context **Input Server Name**.
- (2). Type token in context Input Token.

Note: The token is a string which records account and password. You can obtainit after logging in to QA test tools.

(3). Type the report date in contextInput Image Date.

Note: **%2E**is used to indicate ".". For example, type **20120319%2E5** for "20120319.5".

(4). Select values from the target, testtype, and hwproduct combo boxes, as shown in Figure 5-9.

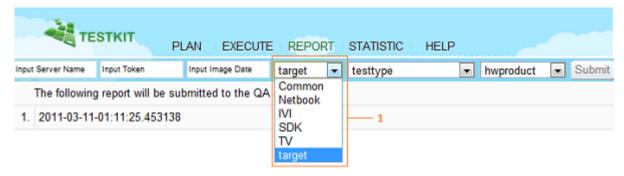


Figure 5-9Selecting a test report to submit

(5). Click**Submit**, as shown in Figure 5-10. The report is submitted to the QA test tools.



Figure 5-10Submitting a test report

5.4.2ComparingReports

To compare reports, perform the following steps:

1. Select reports, and click the Compare button, as shown in Figure 5-11.



Figure 5-11 Comparing reports(1)

2. The page refreshes, as shown in Figure 5-12.



Figure 5-12 Comparing reports(2)

5.4.3 DeletingReport

To delete a test report, perform the following steps:

1. Select one or multiple test reports, as shown in Figure 5-13.



Figure 5-13Deleting test report(s)

2. Click **Delete**. An alert pops up, as shown in Figure 5-14.

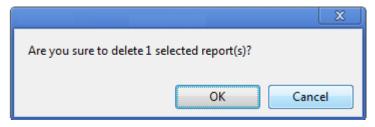


Figure 5-14 Confirmation dialog box (5)

- Click OK. → The report is deleted.
- Click Cancel. → The report is not deleted.

5.4.4 Complete Report with Manual Test Cases

The test case packages include manual test cases whose results need to be submitted to the report manually.

As Figure 5-15 tells:

- If Manual Status is "Complete", the button becomes unavailable with the title "Execution Complete".
- If Manual Status is "Incomplete", the button becomes available with the title "Continue Execution".



Figure 5-15Manual test cases report

1. Click . The page refreshes, as shown in Figure 5-16. Then, you can select the result of manual test cases.

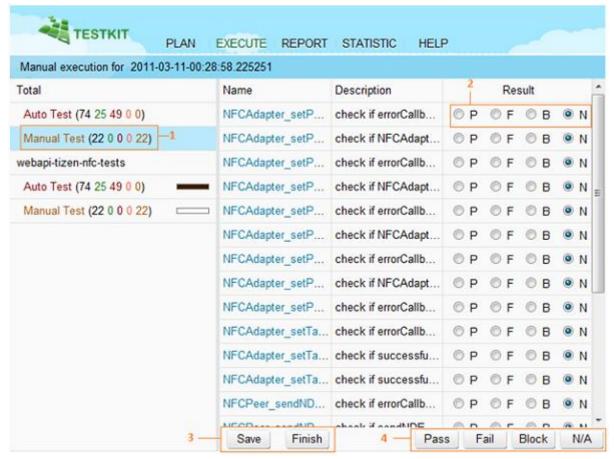


Figure 5-16Selecting result of manual test cases

Caution: Use caution in the following step, for the result cannot be changed after it.

2. Click **FINISH** to refresh the **REPORT** tabpage. The button becomes unavailable.

6. Statistic Test Case

1. Click the **STATISTIC** tab toview statistics by package chart. The page refreshes, as shown in Figure 6-1. The filter function becomes available.

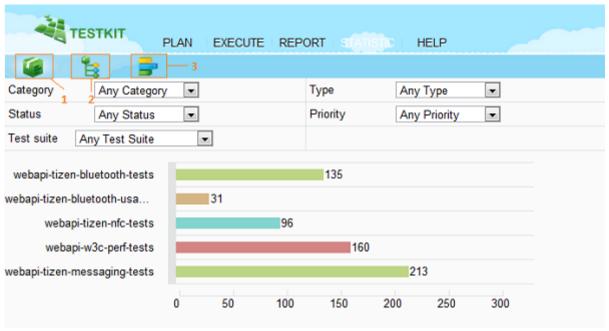
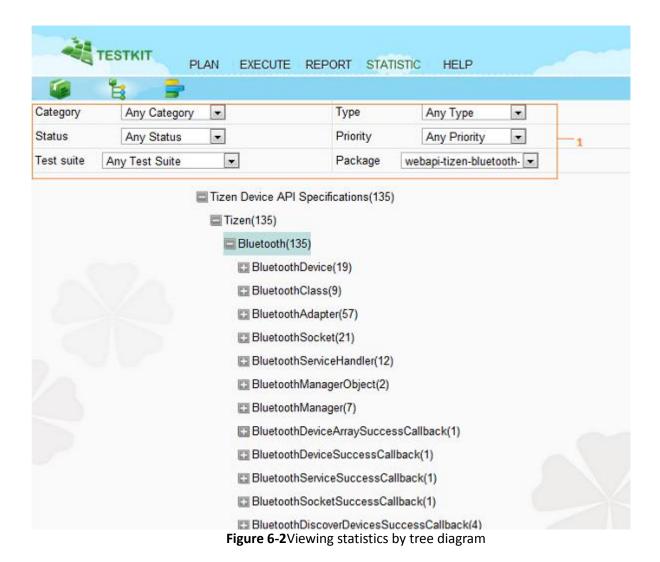


Figure 6-1 Viewing statistics by package chart

2. Click the icon marked by [2] in Figure 6-1 to view statistic by tree diagram. The page refreshes, as shown in Figure 6-2.The filter function becomes available.



3. Click the icon marked by [2] in Figure 6-1 toview statistics by component chart. The page refreshes, as shown in Figure 6-3. The filter function becomes available.

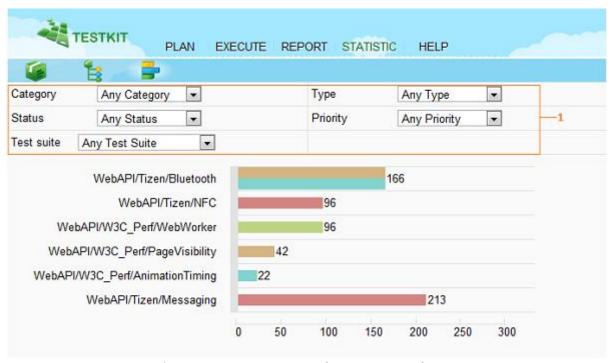


Figure 6-3 Viewing statistics by component chart