

Tct-manager User Guide

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1. Overview

Tct-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.

Tct-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, Tct-manager generates a report automatically. After that, you can view, compare, delete, submit, and export the report.

2. Installation

1. If you install tct-manager by install.sh in TCT package, you don't need do below steps manually
2. install dependence packages on host
 - Host (ubuntu12.04,ubuntu12.10)
 - `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 cpanminus`
 - `sudo cpanm 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`
3. install tct-manager on host
 - Host (ubuntu12.04,ubuntu12.10)
 - `sudo dpkg -i tct-manager-x.x.x-x.deb`
 - Host (fedora17)
 - `sudo dpkg -i tct-manager-x.x.x-x.deb`
4. install 'sdb' on host
 - `sudo cp <somewhere>/sdb /usr/bin`
 - `sudo chmod 755 /usr/bin/sdb`
5. connect device
 - power on device
 - turn on USB debugging mode from Settings -> Developer options -> USB debugging
6. connect USB cable
 - type command '`sudo sdb 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>
9. Suggestion
 - Firefox and Chrome are the preferred web browsers to open testkit-manger
10. Limitation
 - only support devices that have 'sdb' communication module
 - only support testing package with standard version number which is x-x-x.x
 - local repository doesn't support subfolder

11. Known Issues:

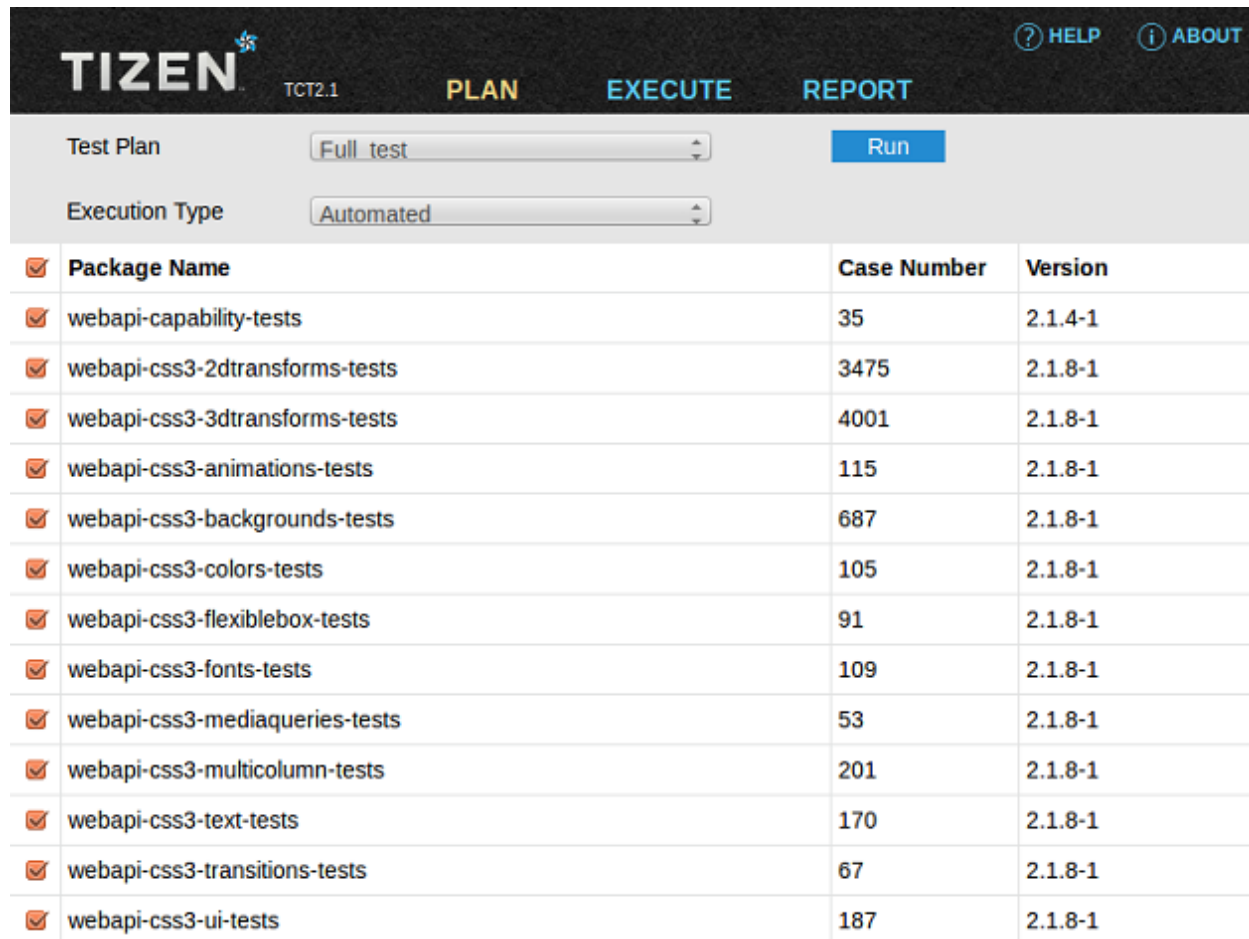
- IE web browser is not supported

3. Preparing Tests

3.1 The plan page

Home page for tct-manager is shown as Figure 3-1. Full_test is the default Test Plan which would shown on home page, and all the packages should be selected.

You can filter 'Automated' or 'Manual' test cases according to 'Execution Type' select box.



<input checked="" type="checkbox"/>	Package Name	Case Number	Version
<input checked="" type="checkbox"/>	webapi-capability-tests	35	2.1.4-1
<input checked="" type="checkbox"/>	webapi-css3-2dtransforms-tests	3475	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-3dtransforms-tests	4001	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-animations-tests	115	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-backgrounds-tests	687	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-colors-tests	105	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-flexiblebox-tests	91	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-fonts-tests	109	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-mediaqueries-tests	53	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-multicolumn-tests	201	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-text-tests	170	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-transitions-tests	67	2.1.8-1
<input checked="" type="checkbox"/>	webapi-css3-ui-tests	187	2.1.8-1

Figure 3-1 PLAN tab page after refreshing

3.2 Create a new test plan

To save a test plan, perform the following steps:

1. Change the checkboxes or the execution type of the current selected test and click Run button, it will popup a dialog and click Cancel to create a new plan as shown in Figure 3-2.

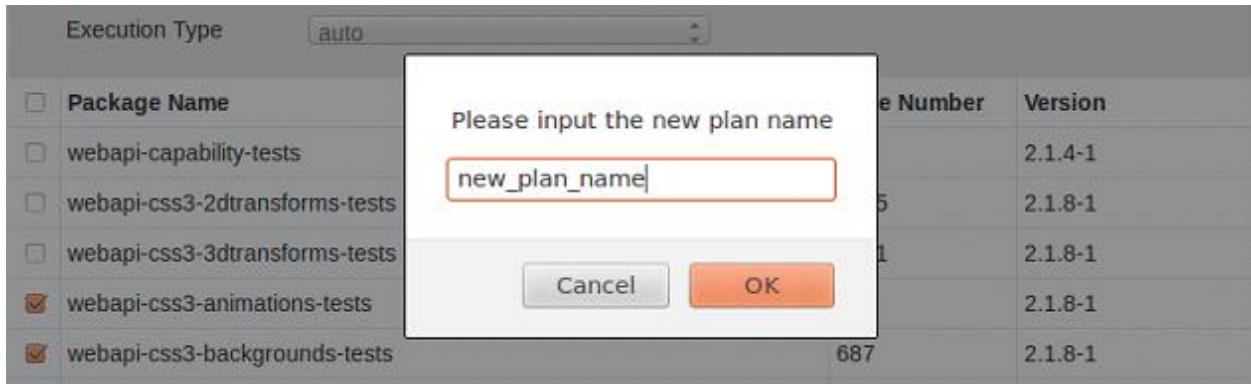


Figure 3-2 create a new plan

4. Executing Tests

4.1 Start Test

To select a test plan, perform the following steps:

1. Select a exist plan . For details, see section 3.3.
2. Click 'Run' button in **PLAN** page .the page will refresh.

If there is a package included in the plan in '/opt/tct-manager/CONF/ hardware_capability_package', a pop up will display. The items shown in this popup is used to display all the hardware envrioment which is necessary for device , and user could enable the option which is necessary for test cases.

For example, if user want to test bluetooth, they would have to enable the option of bluetooth. And click "Confirm" to save , as shown in Figure 4-1.

<input type="checkbox"/>	barometer	No
<input type="checkbox"/>	cameraBack	No
<input type="checkbox"/>	cameraBackFlash	No
<input type="checkbox"/>	cameraFront	No
<input type="checkbox"/>	cameraFrontFlash	No
<input type="checkbox"/>	gyroscope	No
<input type="checkbox"/>	locationGps	No
<input type="checkbox"/>	locationWps	No
<input type="checkbox"/>	magnetometer	No
<input type="checkbox"/>	multiTouchCount	
<input type="checkbox"/>	openglesVersion1_1	No
<input type="checkbox"/>	openglesVersion2_0	No
<input type="checkbox"/>	proximity	No
<input type="checkbox"/>	wifiDirect	No

Confirm

Figure 4-1 hardware capability pop up

After the operation, the page will refresh to manual config page as shown in Figure 4-2. This page is used to make explanation for the usage of bluetooth and GPS. You can choose either “Yes” or” No” to go to EXECUTE page and install packages included in the selected plan directly.

If bluetooth is selected, please manually set it with below steps:

1. Enable Bluetooth function
2. Install Bluetooth test helper app(Bluetooth-test-helper.wgt) in another Bluetooth device which pairs your test device

If location is selected, please manually set it with below step:

1. Enable GPS function

☐ No, skip to set it.
 ☐ Yes, I have set it.

Close

Figure 4-2 Config bluetooth

The number of missing packages will display on the top, as shown by [1] in Figure 4-3. The number of installing packages will display, as shown by [2]. After finish installing, the results will display, as shown by [3]. If there are packages that fail to be installed, the test plan would not be loaded, and you can click link to refresh the page.

Install 69 packages from the test plan

Install package 1: webapi-tizen-contact-tests... [PASS]

Install package 2: webapi-tizen-content-tests... [PASS]

Install package 3: webapi-w3c-netinfo-tests... [PASS]

Install package 4: webapi-html5-clipboard-tests... [PASS]

Install package 5: webapi-tizen-download-tests... [PASS]

Install package 6: webapi-html5-audio-tests...

Figure 4-3 Install package

If all the packages have been installed successfully, the page will skip to execute page automatically and the test begin to execute, as shown in Figure 4-4. 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.

TIZEN TCT2.1 **PLAN** **EXECUTE** **REPORT**

Execute Tests

Test cases have been running **24** minutes

Please wait...

executed time **Stop Test** **1**

Total	487/20884
Auto Test	progress bar
webapi-capability-tests	35/35
webapi-css3-2dtransforms-tests	452/3464
webapi-css3-3dtransforms-tests (3992)	
webapi-css3-animations-tests	(24)
webapi-css3-backgrounds-tests	(541)
webapi-css3-colors-tests	(46)
webapi-css3-flexiblebox-tests	(86)
webapi-css3-fonts-tests	(78)
webapi-css3-mediaqueries-tests	(60)
webapi-css3-multicolumn-tests	(160)
webapi-css3-text-tests	(116)
webapi-css3-transitions-tests	(27)
webapi-css3-ui-tests	(147)
webapi-html5-audio-tests	(378)
webapi-html5-browserstate-tests	(3)
webapi-html5-canvas-tests	(871)

```

<14:02> start time: 2012-04-23 07:00:17
<14:02>
<14:02> [case] execute case: css3_2Dtransforms_tests_entry1619
<14:02> last_test_result: PASS
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 449/890, block case: 49/100, m_timeout_count:0
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 449/890, block case: 49/100, m_timeout_count:0
<14:02>
<14:02> start time: 2012-04-23 07:00:21
<14:02>
<14:02> [case] execute case: css3_2Dtransforms_tests_entry331
<14:02> last_test_result: PASS
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 450/890, block case: 50/100, m_timeout_count:0
<14:02>
<14:02> start time: 2012-04-23 07:00:24
<14:02>
<14:02> [case] execute case: css3_2Dtransforms_tests_entry237
<14:02> last_test_result: PASS
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 451/890, block case: 51/100, m_timeout_count:0
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 451/890, block case: 51/100, m_timeout_count:0
<14:02>
<14:02> start time: 2012-04-23 07:00:27
<14:02>
<14:02> [case] execute case: css3_2Dtransforms_tests_entry3035
<14:02> last_test_result: PASS
<14:02> [ test suite: webapi-css3-2dtransforms-tests.auto.suite_1_set_1.xml, block
<14:02> block: 5/9, total case: 452/890, block case: 52/100, m_timeout_count:0
  
```

execute log info

Figure 4-4 Execute test

After finishing tests, the page will refresh to 'Summary report' page, as shown in Figure 4-4. Click [1] of Figure 4-4, report will export. Click [2] of Figure 4-5, rerun the case which not pass in test plan.

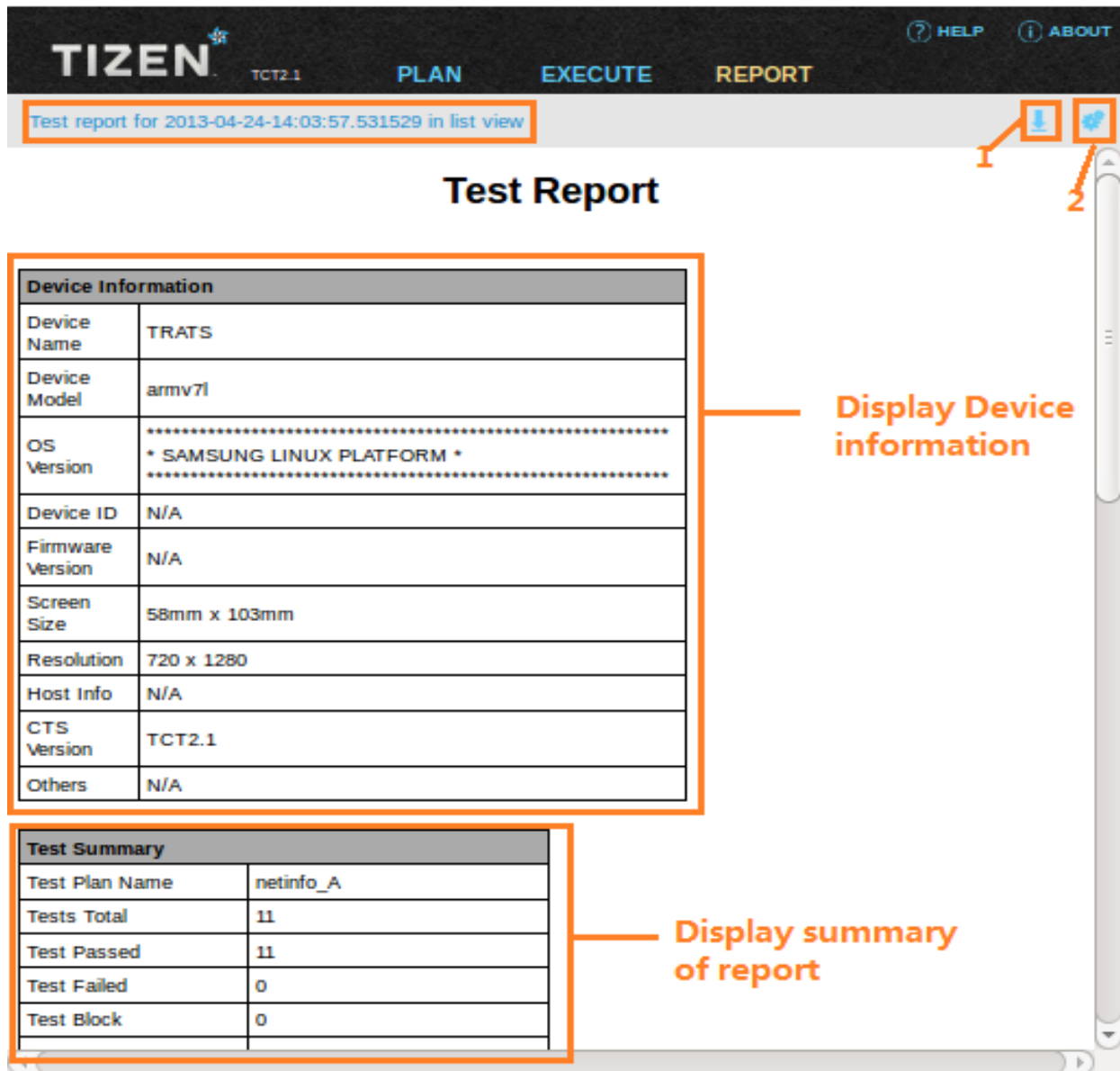


Figure 4-5 Summary report

4.2 Auto Test

You can use the following way to execute auto test cases:

1. Select a exist plan . For details, see section 3.3.
2. Select “auto” in Execution Type.
3. Click ‘Run’ button in **PLAN** page .

When refresh to **EXECUTE** page, the progress bar just display packages that included auto cases, as shown in Figure 4-6.

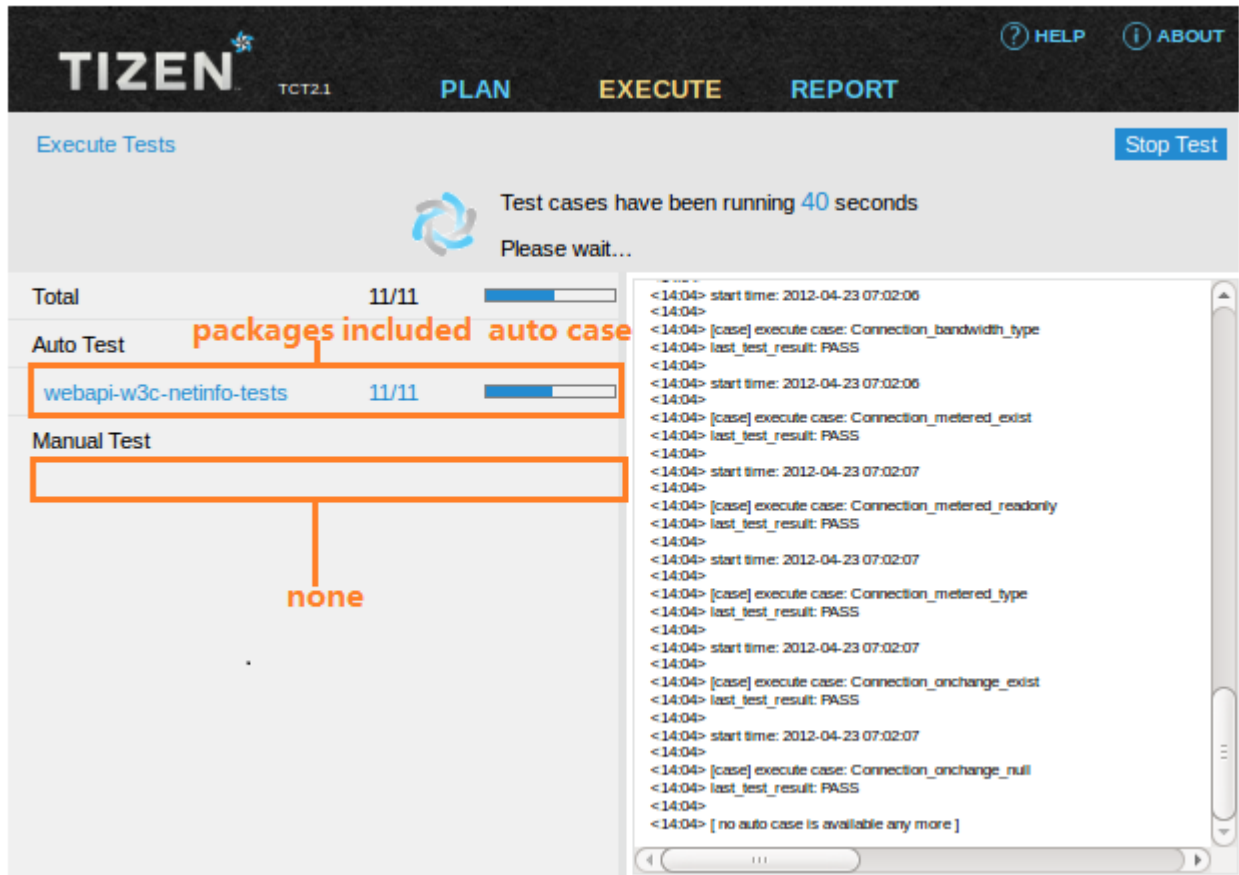


Figure 4-6 Execute auto test

4.3 Manual Test

You can use the following way to execute manual test cases:

1. Select a exist plan . For details, see section 3.3.
2. Select “manual” in Execution Type.
3. Click ‘Run’ button in **PLAN** page .

When refresh to **EXECUTE** page, the progress bar just display packages that induded manual cases, as shown in Figure 4-7.

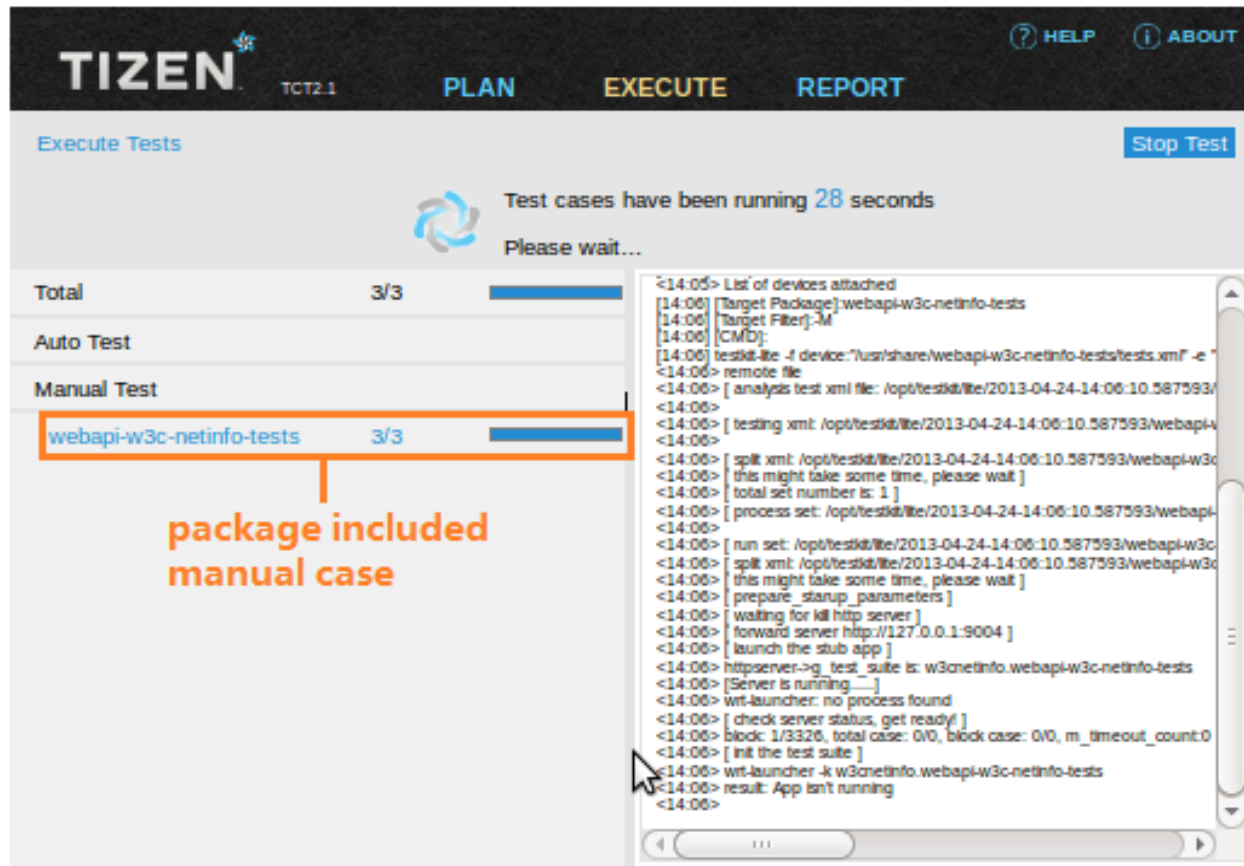


Figure 4-7 Execute manual test

When the test plan (with manual test cases) finishes running, the page refreshes, as shown in Figure 4-8. Then, you can add the result of manual 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 select **Pass**, **Fail**, **Block** or **N/A** for the test results.
- Click **Save**.
- Click **Finish** to complete the execution.

Then, the **REPORT** page refreshes to 'Summary report', you can see the detail in Figure 4-5.

TCT2.1

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 ABOUT

PLANEXECUTEREPORT

Edit test results

Total

Manual Test (3 0 0 3)

webapi-w3c-netinfo-tests

Manual Test (3 0 0 3)

Manual execution for 2013-04-24-14:06:10.587593

Name	Description	Result
Connection_bandwidt...	Check if the value of ...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input checked="" type="radio"/> N
Connection_metered...	Check if the value of ...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input checked="" type="radio"/> N
NetworkInformation_...	Check if trivial examp...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input checked="" type="radio"/> N

Save Finish

Figure 4-8 Manual test cases



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

5. Viewing Report

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PLANEXECUTEREPORT

Test report for all executions

	Test Time	Test Plan	Device Name	Status (Auto Manual)	Operation
<input type="checkbox"/>	2013-04-24-14:36:16.876292	temp	TRATS	Complete Complete	<div> <div>⚙️</div> <div>⬇️</div> <div>⬆️</div> <div>✉️</div> <div>⚙️</div> </div> <div>Compare Delete</div>

Figure 5-1 Reports

5.1 Viewing Summary Reports

Click the 'Test time' to view summary reports, as shown by [1] in Figure 5-1. The page will refresh to 'Summary Report', you can see the detail in Figure 5-2.

You can view summary information, including:

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

Test report for 2013-04-24-14:03:57.531529 in list view

Test Report

Device Information	
Device Name	TRATS
Device Model	armv7l
OS Version	* SAMSUNG LINUX PLATFORM *
Device ID	N/A
Firmware Version	N/A
Screen Size	58mm x 103mm
Resolution	720 x 1280
Host Info	N/A
CTS Version	TCT2.1
Others	N/A

Display Device information

Test Summary	
Test Plan Name	netinfo_A
Tests Total	11
Test Passed	11
Test Failed	0
Test Block	0

Display summary of report

Figure 5-2 Summary reports

5.2 Continue To Execute

Click [2] in Figure 5-1. The page refreshes to 'Manual test cases' page. Then, you can select the result of manual test cases, as shown in Figure 5-3.

Name	Description	Result
Connection_bandwidth...	Check if the value of ...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input type="radio"/> N
Connection_metered...	Check if the value of ...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input checked="" type="radio"/> N
NetworkInformation_...	Check if trivial examp...	<input type="radio"/> P <input type="radio"/> F <input type="radio"/> B <input checked="" type="radio"/> N

Figure 5-3 Manual test cases

5.3 Export Reports

You can click [3] in Figure 5-1. , to download consolidated reports.

5.4 Submitting Report

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

1. Log in to <http://localhost:8899/>.
2. Click the **REPORT** tab.
3. Click [4] in Figure 5-1. The page will refresh to 'Submit ' page, as shown in Figure 5-4.

TIZEN V2.3.0 PLAN EXECUTE REPORT STATISTIC

Input Server Name Input Token Input Image Date target testtype hwproduct Submit

The following report will be submitted to the QA report server:

1.	2013-01-21-16:29:15.350587	%2E represents
----	----------------------------	----------------

Figure 5-4 Submit 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 obtain it after logging in to QA test tools.

(3). Type the report date in context **Input 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 5-5.

TIZEN V2.3.0 PLAN EXECUTE REPORT STATISTIC

Input Server Name Input Token Input Image Date target testtype hwproduct Submit

The following report will be submitted to the QA report server:

1.	2013-01-21-16:29:15.350587	
----	----------------------------	--

Figure 5-5 Selecting a test report to submit

(5). Click **Submit**, as shown in Figure 5-6. The report is submitted to the QA test tools.

TIZEN V2.3.0 PLAN EXECUTE REPORT STATISTIC

Input Server Name Input Token Input Image Date target testtype hwproduct Submit


The following report will be submitted to the QA report server:

1.	2013-01-21-16:29:15.350587	
----	----------------------------	--

Figure 5-6 Submitting a test report

5.5 Send Report

To send a report through email, perform the following steps:

1.If the Evolution in your system, the  button is available with the title "Send report through email".

2. Click the [5] in Figure 5-1, the report is put in attachment of an email. Besides, the subject and body of the email have been done; user need specify a receiver and click "Send" icon.

5.6 Rerun Not Pass Cass

The results indude Fail, Block and N/A, the cases can be rerun and be submitted to execute page

If the result includes Fail, Block and N/A, the  button becomes available with the title "Rerun cases which are not passed".

1. Click [6]in Figure 5-1. The page refreshes to **EXECUTE** page. Then, the test cases which are not passed in previous test will be executed again, as show in Figure 5-7.

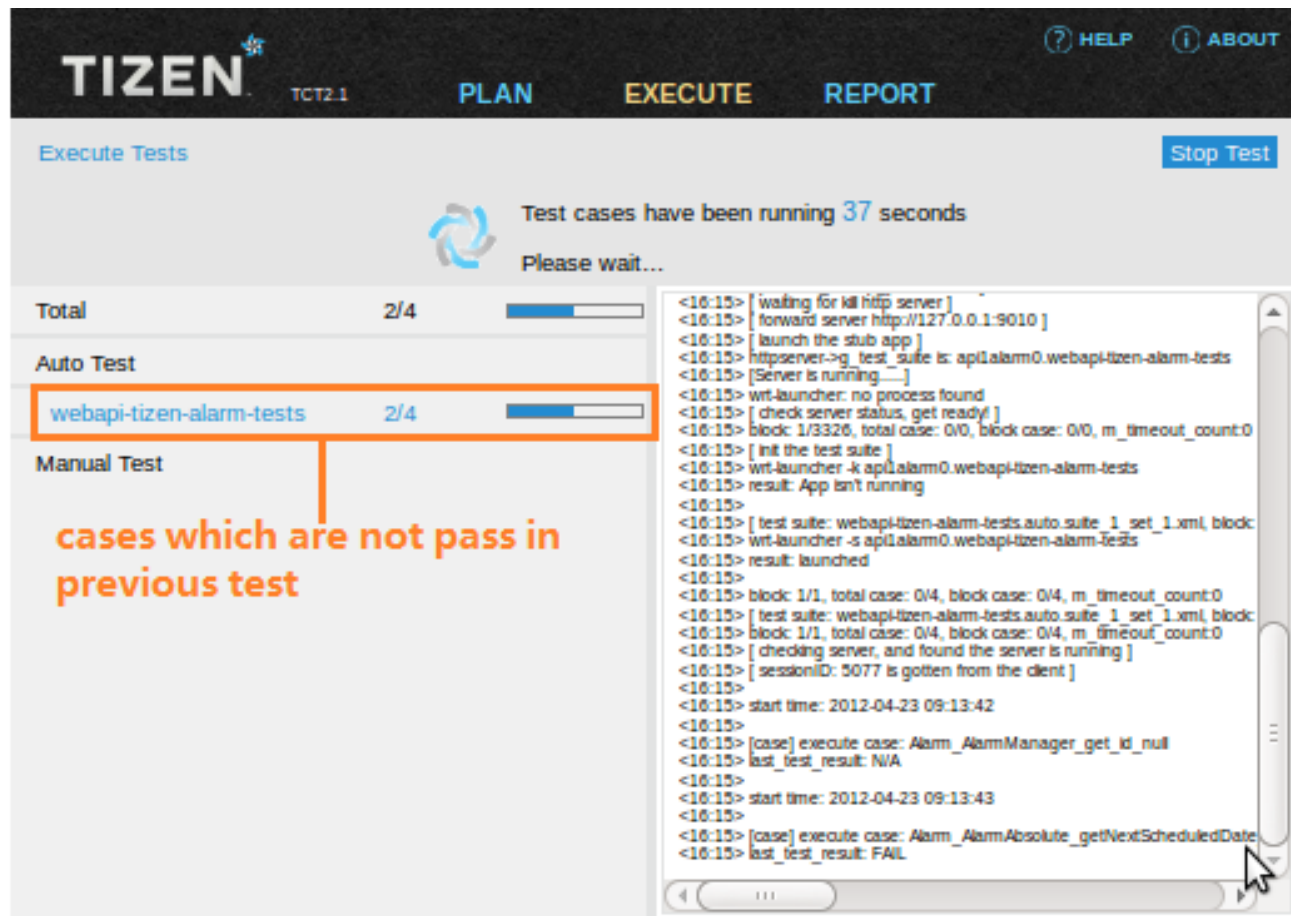


Figure 5-7 Execute page of rerun

2. The report of rerun will be under the father report and add "." before its time. As Figure 5-8 tells:

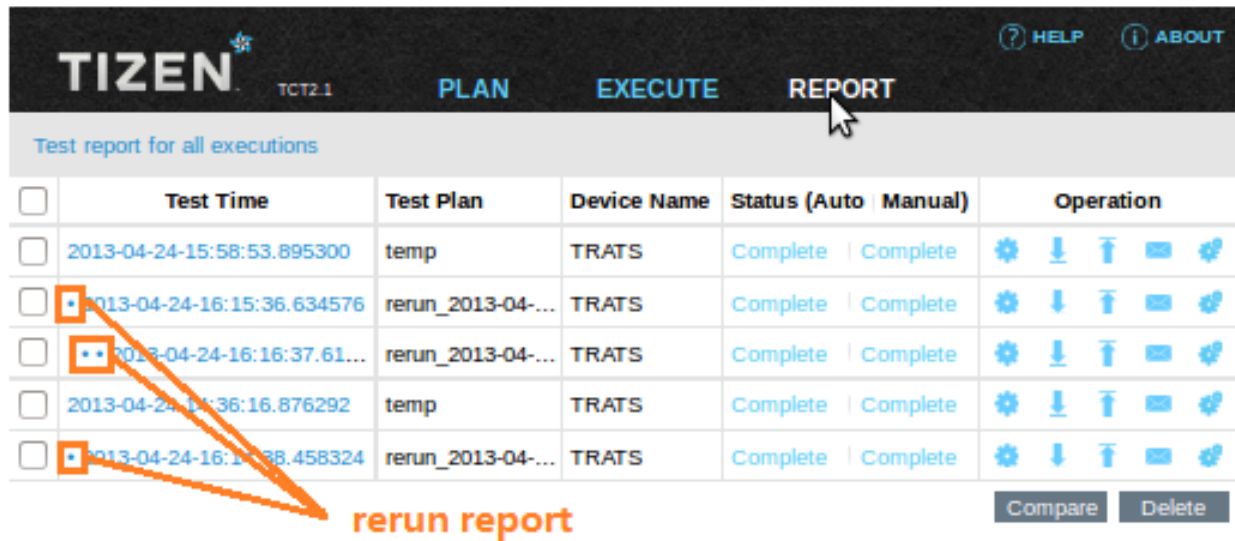


Figure 5-8 Report page includes rerun report

5.7 Comparing Reports

To compare reports, perform the following steps:

1. Select reports, and click the Compare button, as shown in Figure 5-9.

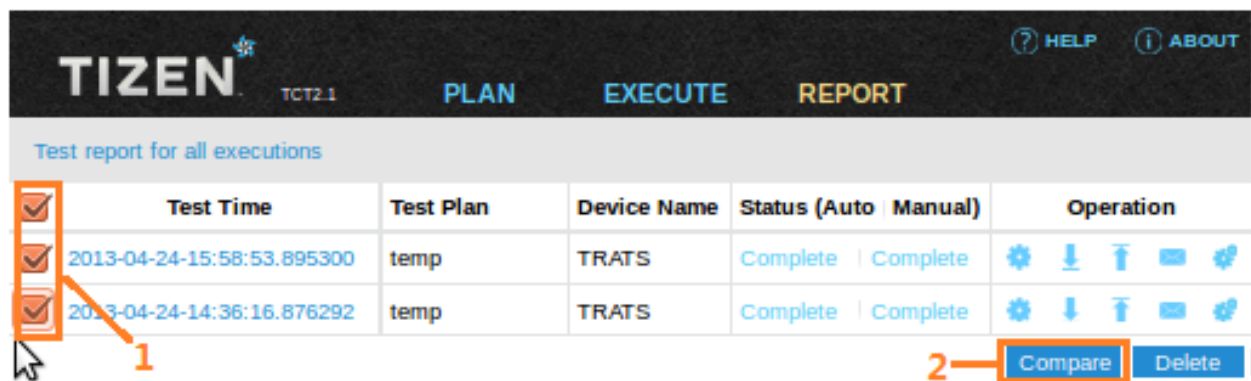


Figure 5-9 Comparing reports (1)

2. The page refreshes, as shown in Figure 5-10.

TIZEN[®]

V2.3.0

PLAN

EXECUTE

REPORT

STATISTIC

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ABOUT

2013-01-21-16:19:32.527734

2013-01-21-16:42:20.224083

Package Name: webapi-w3c-perf-tests

Name	Result	Name	Result
WebWorker_WorkerLocation_pathname_dec...	PASS	WebWorker_WorkerLocation_pathname_dec...	PASS
WebWorker_DedicatedWorkerGlobalScope_...	PASS	WebWorker_DedicatedWorkerGlobalScope_...	PASS
WebWorker_DedicatedWorkerGlobalScope_...	PASS	WebWorker_DedicatedWorkerGlobalScope_...	PASS
WebWorker_DedicatedWorkerGlobalScope_...	PASS	WebWorker_DedicatedWorkerGlobalScope_...	PASS
WebWorker_DedicatedWorkerGlobalScope_...	PASS	WebWorker_DedicatedWorkerGlobalScope_...	PASS
WebWorker_DedicatedWorkerGlobalScope_...	PASS	WebWorker_DedicatedWorkerGlobalScope_...	PASS
WebWorker_WorkerGlobalScope_importScri...	PASS	WebWorker_WorkerGlobalScope_importScri...	PASS
WebWorker_SharedWorker_constructor_name	PASS	WebWorker_SharedWorker_constructor_name	PASS
WebWorker_SharedWorker_constructor_inv...	PASS	WebWorker_SharedWorker_constructor_inv...	PASS
SharedWorkerShared_name_except	PASS	SharedWorkerShared_name_except	PASS
WorkerNavigator_platform	PASS	WorkerNavigator_platform	PASS
SharedWorkerLocation_search	PASS	SharedWorkerLocation_search	PASS
SharedWorkerNavigator_appName	PASS	SharedWorkerNavigator_appName	PASS
SharedWorkerNavigator_platform	PASS	SharedWorkerNavigator_platform	PASS
SharedWorkerLoadError	BLOCK	SharedWorkerLoadError	PASS
WorkerGlobalScope_importScripts	PASS	WorkerGlobalScope_importScripts	PASS
WorkerLocation_hash	PASS	WorkerLocation_hash	PASS
SharedWorkerLocation_hostname	PASS	SharedWorkerLocation_hostname	PASS

the same results

the different results

Figure 5-10 Comparing reports (2)

5.8 Deleting Report

To delete a test report, perform the following steps:

1. Select one or multiple test reports, as shown in Figure 5-11.

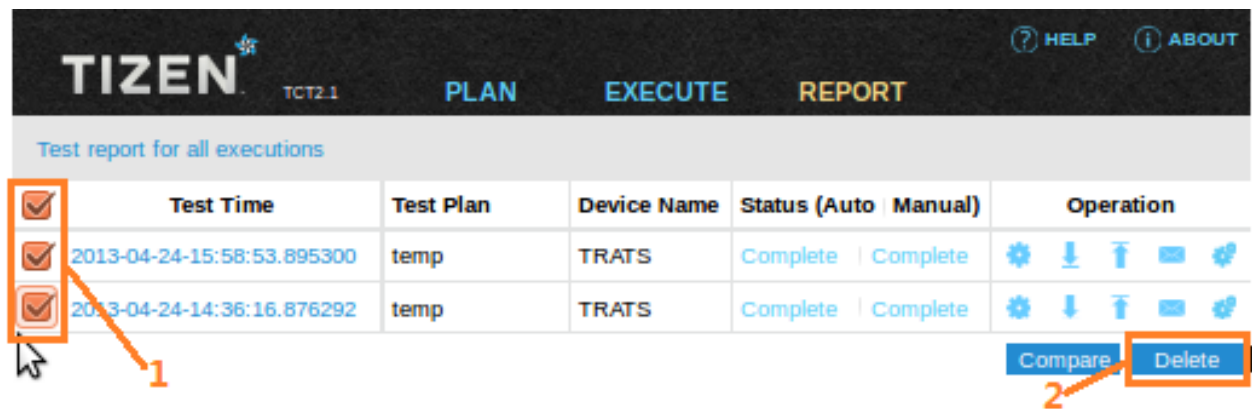


Figure 5-11 Deleting test report(s)

2. Click **Delete**. An alert pops up, as shown in Figure 5-12.



Figure 5-12 Confirmation dialog box

- Click **OK**. → The report and its child reports are deleted.
- Click **Cancel**. → The report and its child reports are not deleted.