

Traceability Report

Shows the requirements traceability through tests, test runs and defects.



Please note

To use this report, you must enable **Requirement Coverage** for your project. See how in [Configure Jira project to be used as Requirements project](#).

- [Purpose](#)
- [How to use](#)
 - [Source data](#)
 - [Analysis](#)
- [Understanding the report](#)
- [Performance](#)
- [Examples](#)
- [Exporting the Report](#)

Purpose

This report enables you to follow the life of a requirement in both forwards and backwards direction (i.e., from its origin all the way through tests, test runs and defects). It facilitates analysis of the overall requirements coverage status.

Possible usage scenarios:

- make full traceability analysis, from requirements \Leftrightarrow Tests \Leftrightarrow Test Runs \Leftrightarrow Defects
- evaluate the requirement status for a given version and see all linked (open/closed) defects
- see the tests and test runs that cover each requirement, and analyze how that contributes to the overall requirement status
- analyze the requirements and related executions and defects in a given Test Environment
- see what defects are impacting the requirements, or a subset of the requirements of a specific version

How to use

This report is accessible either from the **Xray Reports** icon on the project's left sidebar or from the standard **Reports** icon, which includes other kinds of reports besides Xray.

At the top of the report you'll find three areas related with the report and with the data shown in the report.



- **A:** Analysis & Scope, for choosing how to analyze the entities
- **B:** Filter, for selecting the source data
- **C:** visualization information and options

Source data

Source requirements issues can be directly provided (within section B) using a saved filter or by specifying some requirement fields:

- **Saved filter:** a saved filter containing requirement issues
- **Fix Version:** version assigned to requirements
- **Assignee:** the requirement's assignee
- **Key or Summary:** the requirement's key or summary
- **Status:** the workflow status

- **Resolution:** the workflow resolution
- **Include Previous Versions:** take into account previous versions when searching for a requirement

Status: Resolved,Closed ▾

FILTERS | **SAVED FILTER**

Fix Version: All ▾ Assignee: All ▾ Issue Key or Summary

Status: Resolved × Closed × ▾ Resolution: All ▾

Include Previous Versions

Apply Clear Cancel

It's also possible to configure the report with additional parameters (section C):

- **Hide Test Runs:** hides the Test Runs column; this is quite useful when you are using Continuous Integration and you have multiple runs

Analysis

On the left side (section A), it's possible to define the analysis strategy, i.e., the way you want to analyze the selected/filtered requirements. You can choose to analyze either by **Version** or **Test Plan**, and complement it with a **Test Environment**.

If you choose analysis by **Version**, then only the Test Executions for the specified version are taken into account.

If you choose analysis by **Test Plan**, then only the Test Executions (and related Tests and results) for the given Test Plan are considered for the calculation of the coverage status of each requirement.

If the Test Environment is specified, then it considers only the executions within that Environment.

Scope: version; Version: v1.1; Environment: All Environments ▾

VERSION | **TEST PLAN**

Analysis & Scope

Fix Version: v1.1 ▾

Environment: All Environments ▾

Apply Clear Cancel

Note

When you choose analysis by Test Plan, the requirements are not filtered in any way. Therefore, if you want to restrict the list of requirements that are being shown (e.g., just show the requirements being indirectly covered by the Tests belonging to a Test Plan), you must always use the Filter options and eventually, some saved filter for that purpose (such as the **testPlanRequirements** JQL function).

Understanding the report

The issues and values that are shown in the report take into account the options selected for analysis, namely, the relevant Test Executions and corresponding Test Runs and defects.

The report not only shows the traceability between entities, but it also presents some calculated values for the selected options. For example, the requirement status and the Test status that are shown in the Requirements and Tests columns, respectively.

Column	Notes
Requirements	"requirements" and the calculated requirement status, taking into account the options selected for analysis
Tests	Tests and the calculated status, taking into account the options selected for analysis
Test Runs	Test Runs and their status from all related Test Executions
Defects	defects directly associated with the Test Runs as well as those directly linked to the Tests (via a "created" issue link) for the given version (through the AffectsVersion).

Please note

The defects that appear on a separate row (i.e., that are not related with a specific Test Run) contain all defects associated with the Test. In other words, it contains all defects linked to the Test, including the ones reported for Test Runs done on a different environment. This allows you to see all "related defects" which may or not impact your version.

The screenshot displays a grid of test results. On the left, a test run 'CAL-1' is marked 'OPEN' with a green icon and a red 'NOK' status bar. Below it, the text reads 'Version: -' and 'As a user I can perform sum operations'. In the center, 'CAL-3' is 'OPEN' with a green icon and a red 'FAIL' status bar. To its right, 'CAL-4' is 'OPEN' with a green icon, a 'View Details' link, and a 'FAIL' status bar. It includes details: 'Version: v1.0', 'Finished On: 2018-01-03T11:12:22Z', 'Executed By: xavier', and 'Tests environments: ANDROID'. On the far right, 'CAL-5' is 'OPEN' with a red icon and a 'Sum operation returned wrong result' message. Below it, 'CAL-6' is 'OPEN' with a red icon and the message 'Application is crashing'. A red arrow points from the 'CAL-4' test run towards the 'CAL-6' test run.

Performance

In Continuous Integration scenarios, with thousands of runs, showing all those Test Runs at the same time in this report may take some time and may overload your browser.

Xray will warn you beforehand whenever the total amount of Test Runs exceeds a certain threshold.

Therefore, we advise you to:

- use carefully the "Load all" option especially if "Hide Test Runs" is unchecked (this option is available at the top-right side of the report page);
- hide Test Runs column in the report, if the number of runs is considerable high (e.g. > 1000); the amount of information may overload your browser and it will be hard for you to analyze the report with all that information.

Hide TestRuns

Requirement	Tests	Test Runs	Defects
<p>CALC-2801 OPEN</p> <p>v3.0 - OK</p> <p>Version: v3.0</p> <p>As a user, I can calculate the sum of two numbers</p>	<p>CALC-2802 OPEN</p> <p>Manual Test As a user, I can calculate the sum of two numbers</p> <p>v3.0 - PASS</p>	<p>FAIL</p> <p>CALC-2808</p> <p>View Details</p> <p>Version: v3.0 Finished On:2018-10-04T16:52:16+01:00 Executed By:admin Tests environments:-</p> <p>PASS</p> <p>CALC-2810</p> <p>View Details</p> <p>Version: v3.0 Finished On:2018-10-04T16:57:35+01:00 Executed By:admin Tests environments:-</p>	<p>CALC-2809 OPEN</p> <p>calculator crashed</p>

Examples

Requirement	Tests	Test Runs
<p>CALC-2336 OPEN</p> <p>v3.0 - OK</p> <p>Version: v3.0</p> <p>As a user, I can calculate the sum of two numbers</p>	<p>CALC-2337 OPEN</p> <p>Manual Test As a user, I can calculate the sum of two numbers</p> <p>v3.0 - PASS</p>	<p>PASS</p> <p>CALC-2345</p> <p>View Details</p> <p>Version: v3.0 Finished On:2018-08-22T15:55:39Z Executed By:admin Tests environments:-</p> <p>PASS</p> <p>CALC-2348</p> <p>View Details</p> <p>Version: v3.0 Finished On:2018-08-24T11:37:48Z Executed By:xadmin Tests environments:-</p> <p>PASS</p> <p>CALC-2349</p> <p>View Details</p> <p>Version: v3.0 Finished On:2018-08-24T11:39:28Z Executed By:xadmin Tests environments:-</p>

Requirement	Tests	Defects
<p>WEB-141 OPEN</p> <p>NOK</p> <p>Version: v1.0</p> <p>As a new user, I can create my account</p>		
<p>WEB-142 OPEN</p> <p>OK</p> <p>Version: v1.0</p> <p>As a new user I can create an account using my email</p>	<p>WEB-143 OPEN</p> <p>Test As a new user I can create an account using my email</p> <p>PASS</p>	
<p>WEB-145 OPEN</p> <p>NOK</p> <p>Version: v1.0</p> <p>As a new user I can create an account using my Facebook account</p>	<p>WEB-146 OPEN</p> <p>Test As a new user I can create an account using my Facebook account</p> <p>FAIL</p>	<p>WEB-148 OPEN</p> <p>Account is not created when using Facebook account</p>

Note: Requirements with Labels or Statuses configured to be ignored in the Requirements Coverage settings will not appear on this report.

Exporting the Report

The report can be exported to a CSV file, which will include all report rows (and not just the visible ones).

Click on **Export** and select **To csv**.

