

# Integration with Functionize

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## Overview

**Functionize** is an intelligent software testing platform for teams of all sizes and skill sets. By combining the power of human insights with machine learning and other AI-based technologies, it's possible to reduce the time and cost spent in testing while accelerating product releases.

Tests can run across multiple browsers and use AI to self-heal upon UI visual or structural changes.

More details about Functionize [here](#).

The screenshot displays the Functionize web interface. The top navigation bar includes 'Projects', 'Reports', 'Orchestrations', 'TDM', and 'Team'. The user 'Cristiano Cunha' is logged in. The main content area shows a test case titled 'Copy of InvalidLogin' with 8 actions: 1. Open Url 'https://robotwebdemo.herokuapp.com/', 2. Pageinit, 3. Click INPUT field with ID 'username\_field', 4. Input 'demo' in the INPUT field with ID 'username\_field', 5. Input 'password' in the PASSWORD field with ID 'password\_field', 6. Click INPUT with VALUE 'LOGIN', 7. Pageinit, 8. Load URL 'https://robotwebdemo.herokuapp.com/error.html', 9. Verify TEXT attribute for H1 element is equal to 'Error Page', 10. Verify TEXT attribute for P element is equal to 'Login failed. Invalid user name and/or password:'. The bottom section shows a list of test cases with columns: Name, Created, Last Run, Browsers, and Actions. The list contains three entries, all created 38 minutes ago by Cristiano Cunha. The first two are '1. copy of InvalidLogin' and '2. copy of InvalidLogin', both with a status of 'XRAY invalid login t...'. The third is '3. InvalidLogin' with a status of 'XRAY + Link Test'. The interface also includes a sidebar with 'Test Cases' and 'Page Objects' tabs, and a bottom bar with '3 Active' and '0 Deleted' test cases.

Name	Created	Last Run	Browsers	Actions
1. copy of InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha XRAY invalid login t...	38 minutes ago	1 hour ago	Chrome, Firefox	...
2. copy of InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha XRAY + Link Test	38 minutes ago	1 hour ago	Chrome, Firefox	...
3. InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha XRAY + Link Test	2 hours ago	1 hour ago	Chrome, Firefox	...

# Main features

This integration provides:

- integration with Xray cloud or Server/DC
- ability to link tests to an existing "Test" in Jira/Xray
- ability to track automation results in Xray from testing performed using Orchestrations in Functionize
  - Creating a Test Execution linked to the Test Case
  - Creating a Test Execution associated to a Test Plan

## Mapping of concepts

Functionize	Xray
Project	Jira Project
Test Cases (Folder organization)	Test Repository
Test	Test Case
Orchestration	Test Plan/Test Execution
Test Execution	Test Execution

## Setup

A specific integration for Xray is natively provided by Functionize; in order to configure it, the user must follow the below steps to be able to push the results back to Xray.

First open the Team Page, then the Integrations Tab and on the left, select Xray from the Test Case Management section.

Team > **Cristiano Cunha**

Team

Alerts

Settings

Resource Tracker

**Integrations**

**Test Case Management**

☐ TestRail

☒ **Xray**

**Defect Management**

☐ Jira

**Requirements Management**

☐ Jira

**Xray**

**Test Authentication / Connection**

Please provide your Xray credentials so we can verify the connection.

☐ Cloud

☒ Server/Data Center

URL

Jira Username

Jira Password

Proxy

The necessary configuration must be filled:

1. In the main panel, provide credentials for the connection. Select Cloud or Server/Data Center, accordingly with your Jira deployment type
2. Enter the URL for your Jira project, your Jira username, and your Jira API token (not your password). For more info on Jira API tokens, please check [Manage API tokens for your Atlassian account](#).
3. Enter your Xray Client ID and Client Secret (obtain/create these on Xray settings; please check [Global Settings: API Keys](#)).
4. Click Test Sign In and the status next to the button should update to Connection established with a green check mark when ready.

Test Sign In

Connection established. ✓

Finally scroll down to the Project Mappings section.

Here you will select the Functionize and Xray projects you wish to link together and select the appropriate testing environment to be used (only for that environment, in the Functionize side, we will see the integration button appear).

Then proceed to define the mapping between status in each side (map the Functionize test statuses to the Xray test statuses as you would wish them to be reported).

As you can see, multiple projects may be added; however, each one must be configured individually.

### Projects Mappings

Set up your projects below:

xraytutorials

Live

Xray Tutorials

FAILED

INCOMPLETE

WARNING

PASSED

FAIL

FAIL

FAIL

PASS

+ Add Project

To finish the setup click Submit to save your connection details.

## Linking Test Cases to Tests

Once you have the setup finished you will need to link the Test Cases (from Functionize) with Tests (in Xray). In order to do that, open the Functionize project you have linked with Xray.

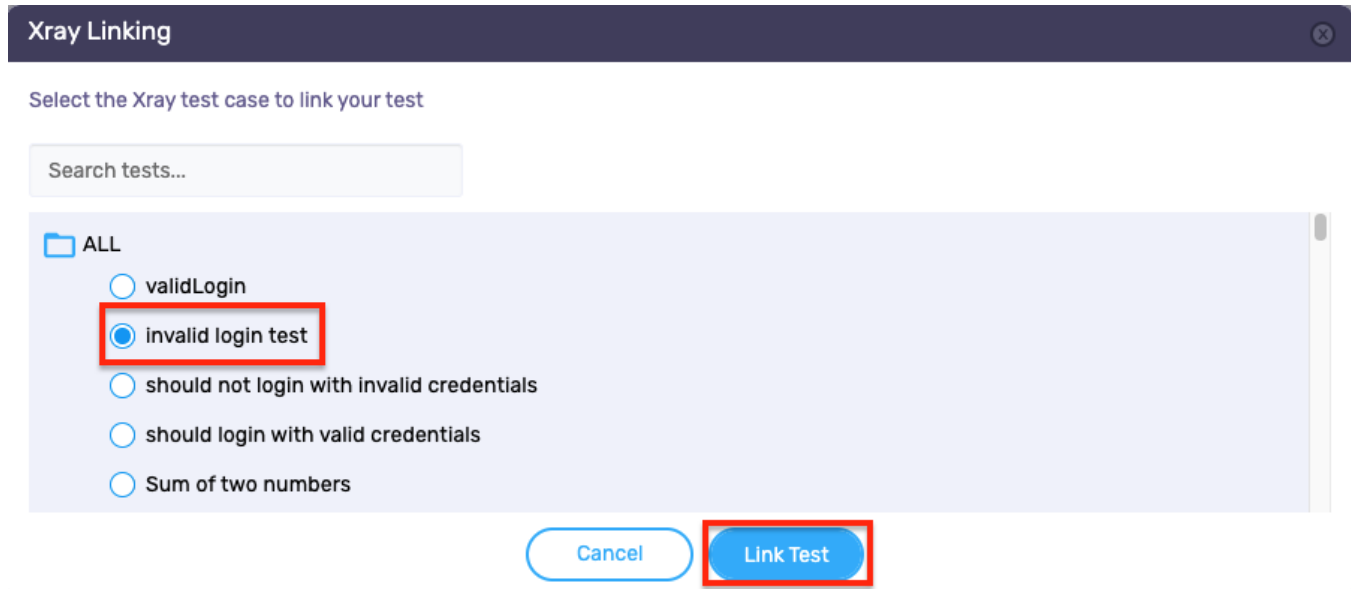
On the left panel, confirm you have selected the testing environment previously mapped with your Xray project (the list of tests in the main panel will display the Xray logo + Link Test).

The screenshot shows the Functionize interface with the 'Projects' tab selected. The 'xraytutorials' project is chosen, and the 'Live (3)' environment is selected. The main panel displays a list of test cases, each with a 'Link Test' button and an Xray logo. The left sidebar shows the 'Test Cases' tab and a list of environments.

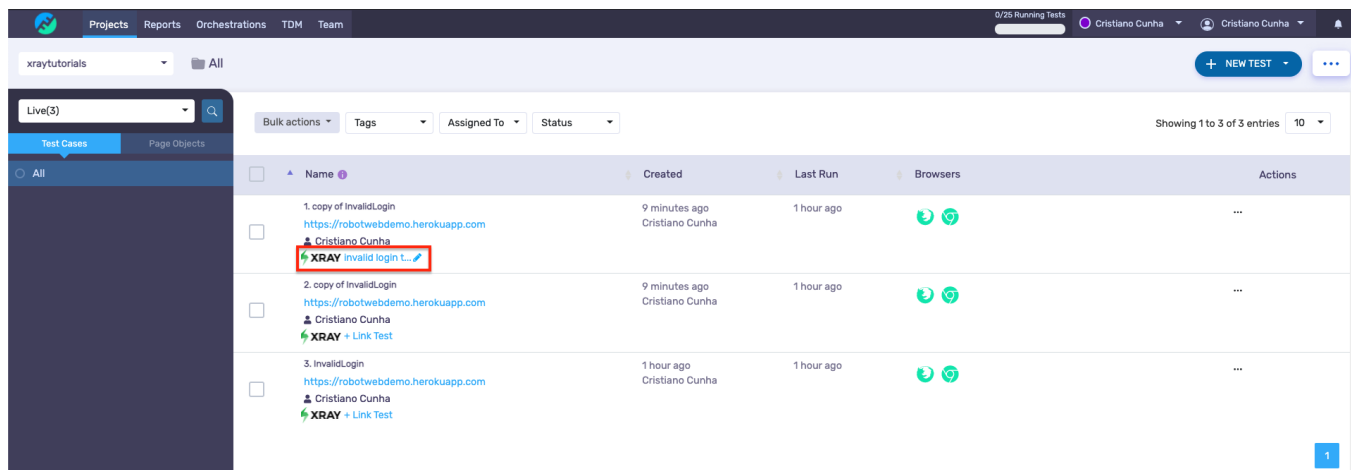
Name	Created	Last Run	Browsers	Actions
1. copy of InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha <b>XRAY + Link Test</b>	36 seconds ago Cristiano Cunha	57 minutes ago	Chrome, Firefox	...
2. copy of InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha <b>XRAY + Link Test</b>	44 seconds ago Cristiano Cunha	57 minutes ago	Chrome, Firefox	...
3. InvalidLogin https://robotwebdemo.herokuapp.com Cristiano Cunha <b>XRAY + Link Test</b>	1 hour ago Cristiano Cunha	57 minutes ago	Chrome, Firefox	...

In each Test that you want to link with a Test in Xray, in the Project view, click the "Link Test" link to open the Xray Linking window.

Select the corresponding Xray test entry > Click Link Test.



Once the mapping is done, the Test name (from Xray) will be listed in the place of Link Test along with a pencil icon to edit the connection at any time.



## Import results to Xray

In order to import the results back to Xray, go to the Orchestrations page and create a new Orchestration.



Create New Orchestration

DetailsIntegrationsAdvanced

Run Order

☒ Parallel (Default)

☐ Sequential

Orchestration Type

☒ Single

☐ Group

Re-run

☐ Incomplete Tests

☐ Failed Tests

☐ Is Smoke Orchestration

Email Alerts

Please enter emails with comma separated and do no provide space

URL Override

string::replacement

Alerts Delivery

Alert sent on Failure only

Webhook Url

Submit Linked Tests to TCM

✓ On Demand

Automatically after any orchestration execution

Automatically after any passing orchestration

Xray Test Plan

Fix Version

Select Fix \

Cancel

Add New

The last configuration allows you to associate the orchestration to a Test Plan and/or Fix Version, for that you will find two drop down options, like below, where you can choose the Test Plan (fetched from Xray) and/or the Fix Version to be associated to the Execution (also fetched from Xray, i.e., from the configured project releases).

If you choose to configure those they will be pre-filled on the orchestration view, this is not a mandatory configuration so you can also leave it blank (you will be able to define these per orchestration execution), next press "Add New".

## Create New Orchestration



Details

Integrations

Advanced

Run Order



Parallel (Default)



Sequential

Orchestration Type



Single



Group

Re-run



Incomplete Tests



Failed Tests



Is Smoke  
Orchestration

Email Alerts

Please enter emails with comma separated and do no provide space

URL Override

string::replacement

Alerts Delivery

Alert sent on Failure only



Webhook Url

Submit Linked Tests  
to TCM

On Demand



Xray Test Plan

Select Test Plan



Fix Version

Select Fix \



Cancel

Add New

We are taken to a confirmation panel where we can select which of the Test Cases we want to include in this Orchestration.

## Confirm Test Cases



Please confirm the test cases that should be part of this orchestration.

#.	Test Case Name	Project Name	Environment
<input checked="" type="checkbox"/>	copy of InvalidLogin	xraytutorials	live
<input checked="" type="checkbox"/>	copy of InvalidLogin	xraytutorials	live
<input checked="" type="checkbox"/>	InvalidLogin	xraytutorials	live

Cancel

Submit

Once you are happy with the selection, press "**Submit**" and you will see a new Orchestration appearing in the list.

Title	Schedule	Projects	Execution Details	Execute	Action
Xray_Integration (22124) 43 secs ago	On Demand	xraytutorials		▶	Actions +
xraytutorials (22123) 1 hour ago	On Demand	xraytutorials		▶	Actions +
TestPlanValidation (22004) 3 weeks ago	On Demand	ComicStore	Last run: 2021-08-19 09:19:22 (PDT) Execution time: 1 min 36 secs Status: Passed 2 Executions / 2 Passed	⌂	Actions +
Xray_integration (21869) 6 weeks ago	On Demand	ComicStore	Last run: 2021-08-20 02:33:56 (PDT) Execution time: 1 min 41 secs Status: Passed 4 Executions / 4 Passed	⌂	Actions +
DoubleEnv (21630) 9 weeks ago	On Demand	ComicStore	Last run: 2021-07-07 09:57:26 (PDT) Execution time: 1 min 36 secs Status: Passed 4 Executions / 4 Passed	⌂	Actions +
RunAccountTests (21629) 9 weeks ago	On Demand	ComicStore	Last run: 2021-07-07 08:15:05 (PDT) Execution time: 5 mins 41 secs Status: Passed 2 Executions / 2 Passed	⌂	Actions +

Now let's execute the Orchestration, for that press the play icon and click Run Orchestration in the confirmation modal.

Once the execution have finished you can check the details by choosing the "**Orchestration Results**".

Title	Schedule	Projects	Execution Details	Execute	Action
Xray_Integration (22124) 2 mins ago	On Demand	xraytutorials	Status: Processing	⌂	Actions + Orchestration Results API Calls Delete Orchestration
xraytutorials (22123) 1 hour ago	On Demand	xraytutorials		▶	
TestPlanValidation (22004) 3 weeks ago	On Demand	ComicStore	Last run: 2021-08-19 09:19:22 (PDT) Execution time: 1 min 36 secs Status: Passed 2 Executions / 2 Passed	⌂	
Xray_integration (21869) 6 weeks ago	On Demand	ComicStore	Last run: 2021-08-20 02:33:56 (PDT) Execution time: 1 min 41 secs Status: Passed 4 Executions / 4 Passed	⌂	Actions +
DoubleEnv (21630) 9 weeks ago	On Demand	ComicStore	Last run: 2021-07-07 09:57:26 (PDT) Execution time: 1 min 36 secs Status: Passed 4 Executions / 4 Passed	⌂	Actions +
RunAccountTests (21629) 9 weeks ago	On Demand	ComicStore	Last run: 2021-07-07 08:15:05 (PDT) Execution time: 5 mins 41 secs Status: Passed 2 Executions / 2 Passed	⌂	Actions +

On the Orchestration Results panel, if you selected On Demand when setting up your Orchestration, you will see two drop down options, one for choosing a Test Plan and another for choosing a Fix Version (if you already have defined these in the orchestration configuration they will be pre-filled) and a "**Submit to Xray**" button on the upper right corner.

These combinations will allow you to:

- Define a Test Plan - this option will associate the Test Executions to a Test Plan in Xray (you can use this option without having a Fix Version defined)
- Define the Fix Version - you can choose the Fix Version that you are testing to be associated in the Test Execution (you can use this option without having a Test Plan defined)

If none of the above options are filled, that is ok too, it will mean that you will just submit the Orchestration results directly to a Test Execution (without Fix Version or Test Plan associated with it).

For this example, we will not define a Test Plan and a Fix Version and then press the "Submit" button to send those results to Xray.

The screenshot shows the 'Orchestrations' tab in the Functionize interface. At the top, there are navigation links: Projects, Reports, **Orchestrations**, TDM, and Team. On the right, it shows '3/25 Running Tests' and the user 'Cristiano Cunha'. Below the navigation bar, there's a dropdown menu set to 'Xray\_Integration'. To the right of this, there are buttons: 'Xray Test Plan', 'Select Test Plan', 'Fix Version', 'Select Fix Version', and 'Submit To Xray'. Below these buttons, there's a section for 'Orchestration > Xray\_Integration' with a date range '2 mins ago - 2021-09-13 03:36:57' and an 'All Tags' dropdown. A 'Compare Runs' button is also present. The main content area shows 'FIREFOX' with a checkmark and '77'. Below this, there's a summary row with metrics: 3 Test Cases, 3 Executions, 1 min 48 secs Execution Time, N/A Last Orchestration, 3 N/A Executions Passed, 0 N/A Executions Failed, 0 N/A Executions Warnings, and 0 N/A Executions Incomplete. The 'Browser Results' section for 'Firefox' shows a large green circle with '3 PASSED' and a legend: Failures 0.00%, Warnings 0.00%, Passed 100.00%, and Incomplete 0.00%.

A modal will open showing the name of the Xray Execution and a link to the execution will be visible under the Submit to Xray button.

This screenshot is similar to the first one but includes a modal dialog. The modal is titled 'Results sent to Xray' and contains the text 'New execution created with XT-310' and an 'Ok' button. In the background, the 'Submit To Xray' button now has a link icon and the text 'XRAY XT-310'. The rest of the interface, including the metrics and browser results, remains the same as in the first screenshot.

The result will be added in the Xray side as a new Test Execution. In Functionize, a Xray link will be provided; when you click it, you will be taken to the Test Execution in the Xray side.

**Details**

Type: Test Execution  
 Priority: Trivial  
 Labels: None  
 Test Plan: None  
 Test Environments: None

**Description**

<https://app.functionize.com/account/share/orchestration/?code=b9dcc2477766ca611b1934e56030f3b4613f2b20eb86e>

Testcase	Env	Browser	Status	Exec Time	Dataset	Result Link
InvalidLogin (No Xray mapping)	live	Firefox 77	PASS	38s		Details
copy of InvalidLogin (No Xray mapping)	live	Firefox 77	PASS	35s		Details
copy of InvalidLogin	live	Firefox 77	PASS	42s		Details

On the Test Execution we can see:

- The Summary, that is a concatenation of the title given to the Orchestration plus the date hour
- In the Description, we can find the link back to Functionize application and a table with the details of the execution.
- The Fix Version we have define in Functionize side, if any
- The Test Plan we have chosen to associate in the Functionize side, if any

If you scroll down you will see two Test Executions (associated with the Tests we linked in the Functionize side).

**Tests**

[Add Tests](#)

**Overall Execution Status**

1 PASS

**Total Tests: 1**

[Filter\(s\)](#)

[Apply Rank](#)


Show 100 entries Columns

Rank	Key	Summary	Test Type	#Req	#Def	Assignee	Dataset	Status
1	XT-306	invalid login test	Generic	0	0	Xpand IT Admin		PASS

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

If we press the Test Execution details icon and choose from the drop down entries, Execution Details, we are taken to the Execution Details where we can see the details of that specific execution, namely the two entries that correspond to the execution results in the Functionize side.

 Xray Tutorials

XT board

Backlog

Active sprints

Releases

Reports

Issues

Components

Structure

Xray Reports

Xray Test Repository

Xray Test Plan Board

Automated Steps Library

Add-ons

PROJECT SHORTCUTS

Add a link to useful information for your whole team to see.

Add link

Xray Tutorials / Test Execution: XT-310 / Test: XT-306

invalid login test

Export Test as Text

Return to Test Execution

Execute with Exploratory App

Execution Status

PASS

Started On: 13/Sep/21 10:37 AM

Finished On: 13/Sep/21 10:38 AM

Assignee: Xpand IT Admin

Executed By: Xpand IT Admin

Tests environments:

Versions: -

Revision: -

Comment

Preview Comment

Testcase	Env	Browser	Status	Exec Time	Dataset	Result Link
copy of Invalid.Login	live	Firefox 77	PASS	42s		Details

Execution Defects (0)

No defects yet...

Execution Evidence (0)

No evidence yet...

Test Details

GENERIC

Custom Fields

There are no Test Run Custom Fields defined.

Test Description

login attempt with invalid credentials

Test Type: Generic

Definition: com.xpandit.xray.tutorials.LoginTests.Invalid.Login

Activity

# Learn more

- [Functionize home page](#)
- [Functionize Documentation](#)
- [Functionize Integration Documentation](#)
- [Functionize Architect \(web extension for Chrome\)](#)