



Atlassian Automotive User Forum #4

Sérgio Freire
Xray's Product
Manager



+4

Years

Making kickass software

+5

Offices

In 3 different countries

#1

Test Management

Top rated Test Management solution for Jira

+4.500

Customers

Trust our products

+65

Countries

With customers

+370

Reviews

In the Marketplace

+450.000

Lines of Code

Written by our team

4

Languages

Available in English, German, Spanish and French

+123

Features

Delivered just during 2018



Cutting-edge Test management

DISCOVER THE FUTURE
OF TESTING WITH JIRA

Export Jira issues using word and excel templates

THE #1 REPORTING
APP FOR JIRA



Our Clients from the Automotive sector



RENAULT



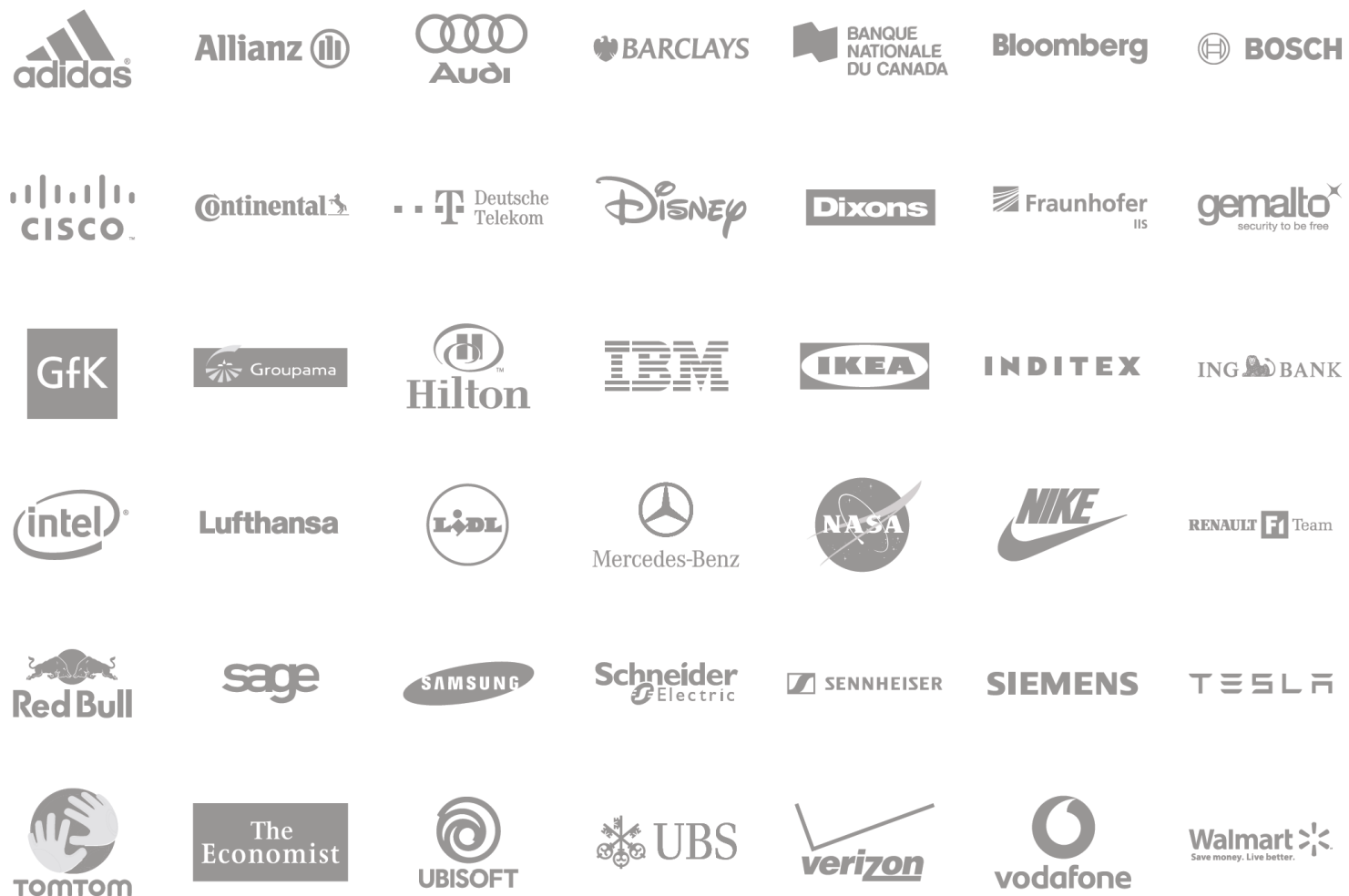
Kapsch >>>



TESLA



137 of the Fortune 500 trust Xpand



Agenda

1. Automotive Sector
2. Xray in a nutshell
3. How are Automotive companies using Xray?
4. Recent improvements with Xray 3.2
5. More on the “road”
6. Additional Resources
7. Q&A

1. Automotive Sector

My first car? Any guesses?

“Carro de rolamentos” (bearing car?)



Meanwhile, things have evolved...



Automotive sector is changing

“Today’s vehicles have at least 10 million lines of mission-critical software code”

New Automotive DNA: How IoT Is Transforming The Automotive Industry, Digitalist Magazine, Aug. 2018

Changes ↔ Risks Duality

Changes

- feedback & customer engagement
- Big Data & predictive & AI
- autonomous
- electric / electrified
- shared
- services
- updates
- I4.0

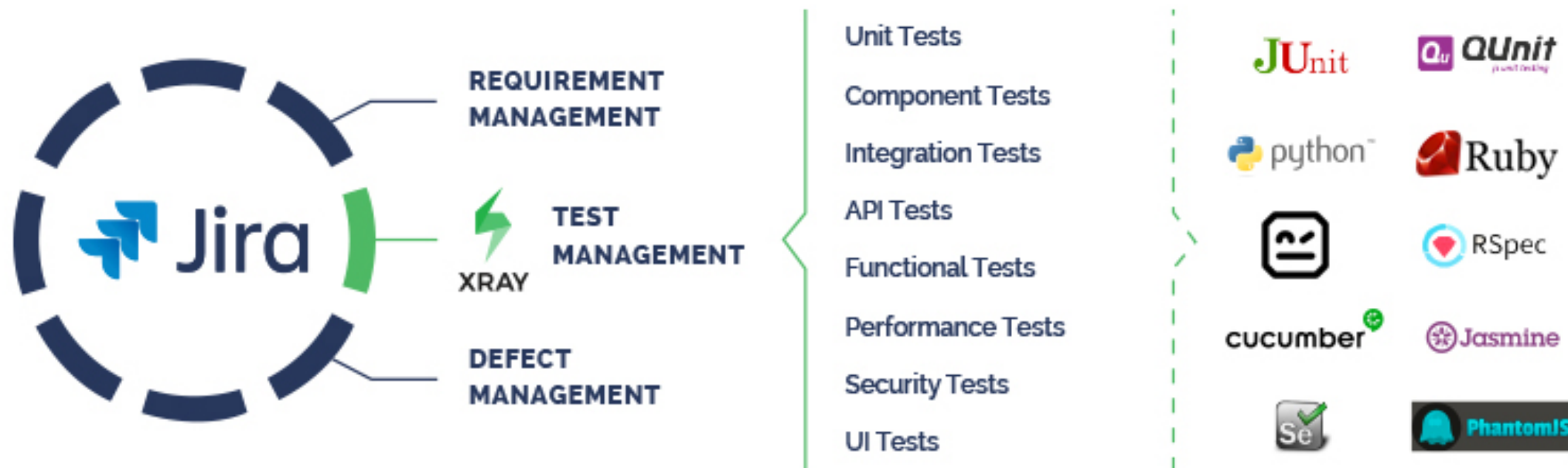


Risks

- Mitigate
- Avoid

2. Xray in a nutshell

Xray



Manual and Automated

Principles of XRAY

We build XRAY so that it...

1. Gives you the tool, and don't dictate how you should do it
2. Gives you freedom, so you can adapt the tool to your team and your processes
3. Gives you the power, so you can have greater control over your process
4. Gives you possibilities, so you can leverage the power of other tools

XRAY and your teams

We let you...

1. Focus on the work, while XRAY does the boring stuff
2. Improve collaboration, as developers and testers have more time
3. Get things done right the first time, so you deploy with confidence

Real status of requirements with in-context information

Calculator / CALC-1178
As a user, I can calculate the sum of 2 numbers

Comment Agile Board More Reopen Issue export Admin

Details

Type: Story Status: **CLOSED** (View Workflow)
 Priority: Major Resolution: Fixed
 Affects Version/s: None Fix Version/s: v3.0
 Component/s: None
 Labels: None
 Sprint: Sprint 1

Requirement Status: **v3.0 - OK**

Test Coverage

Create new Test Create new Sub Test Execution

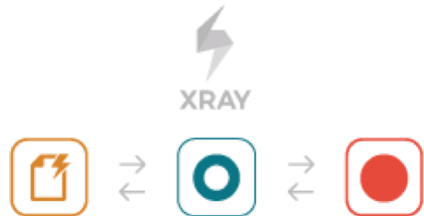
Version v3.0 All Environments **OK**

OPEN	Unresolved	CALC-1240	Test As a user, I can calculate the sum of 2 numbers	PASS
OPEN	Unresolved	CALC-1180	Cucumber Test As a user, I can calculate the sum of 2 numbers	PASS
OPEN	Unresolved	CALC-1181	Generic Test As a user, I can calculate the sum of 2 numbers	PASS
OPEN	Unresolved	CALC-1179	Manual Test As a user, I can calculate the sum of 2 numbers	PASS
OPEN	Unresolved	CALC-1202	CanAddNumbers	PASS

With Xray:

- ✓ Real-time information about the coverage status of the requirement for a given version
- ✓ Real-time information about the associated test results, for a given version
- ✓ A "requirement" may be any issue type you may have; test coverage can be made in any issue type

Full Traceability



- Shows the requirement traceability, from requirements to defects.
- Visibility of coverage at different levels (e.g. Epic and Story)

Traceability Report [Switch report](#) Export

Scope: version; Version: v3.0; Environment: All Environments Saved Filter calc_requirements_for_traceability_report [How to read this report](#) Showing 2 of 2 entries

Requirement	Tests	Test Runs	Defects
<p>CALC-2375 OPEN</p> <p>v3.0 - OK</p> <p>Version: v3.0</p> <p>dummy story</p>	<p>CALC-2376 OPEN</p> <p>Test dummy story</p> <p>v3.0 - PASS</p>	<p>PASS</p> <p>CALC-2378</p> <p>View Details</p> <p>Version: v3.0</p> <p>Finished On: 2018-09-25T10:56:49Z</p> <p>Executed By: xadmin</p> <p>Tests environments: -</p>	
<p>(2) CALC-585 OPEN</p> <p>v3.0 - NOK</p> <p>Version: v3.0</p> <p>Epic 1</p>	<p>CALC-568 OPEN</p> <p>v3.0 - NOK</p> <p>Version: v3.0</p> <p>As a user, I can calculate the sum of 2 numbers</p>	<p>CALC-569 OPEN</p> <p>Calculate the sum of 2 numbers</p> <p>v3.0 - FAIL</p>	<p>CALC-575 OPEN</p> <p>def1</p> <p>CALC-576 OPEN</p> <p>Def2</p>

Additional details for CALC-574 (FAIL):

- Version: **v3.0**
- Finished On: **2016-09-06T16:39:06Z**
- Executed By: **admin**
- Tests environments: -
- Category: **TODO**
- Item: **CALC-595**

Coverage Analysis

*This requirement for the sensor is **UNCOVERED***

- This requirement has no linked Tests

... is OK on v3.0

- All Tests related with that requirement are **PASSING** for v3.0

... is OK on v4.0

- All Tests related with that requirement are **PASSING** for v4.0

... is NOK on v3.0

- Some Test(s) related with that requirement are **FAILING** for v3.0

... is NOK on v4.0 in configuration X

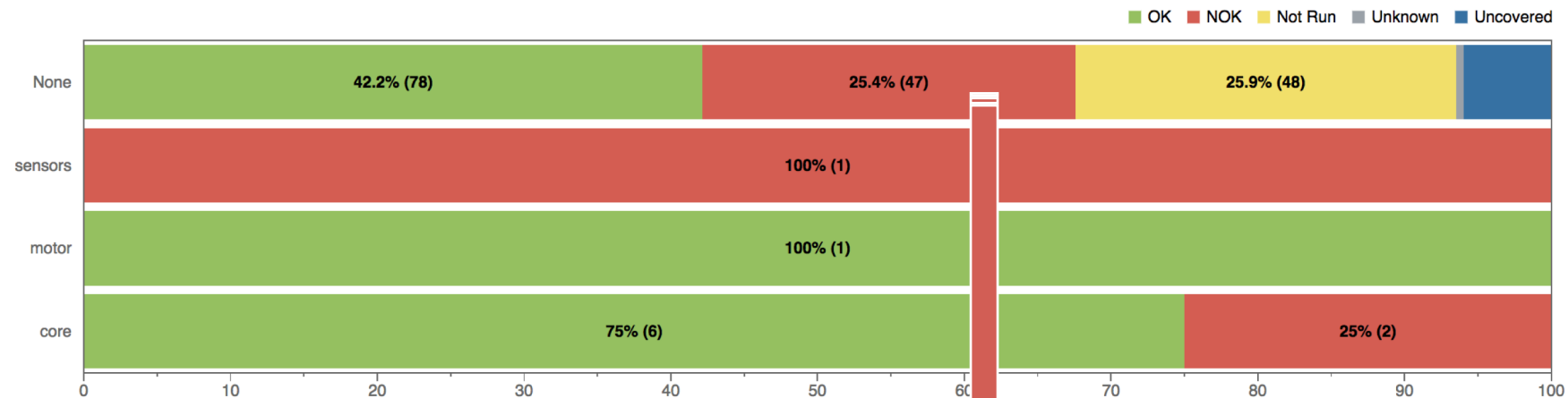
- Some Test(s) related with that requirement are **FAILING** for v4.0 in configuration X

Coverage Analysis

- Provides a quick way of evaluating the current (coverage) status of your project's requirements, so you will be able to see if they are ready or not.
- Ability to make the analysis by component, priority or any other field of requirement
- Ability to drill-down

Overall Requirement Coverage Report [Switch report](#) ▾

Scope: version; Version: v3.0; Environment: All Environments ▾ Component/s ▾ Filter ▾ [How to read this report](#)



Requirements with Component/s "core" and Status "NOK"

[View Issues](#)

Show 10 entries

Key	Summary	Total Tests	Tests Passed	Tests Failed	Tests Unknown	Completeness
CALC-653	As a user, I can calculate the sum of 2 numbers	5	0	1	4	0%
CALC-3	Addition Operation	2	1	1	0	50%

Enhanced Agile Boards with Xray

Xray gives you visibility of your testing results and its progress right in your existing Boards.

Calculator Board Enhanced with Testing 🕒 0 days remaining [Complete Sprint](#) Board ▾ ⌆

Sprint 1

QUICK FILTERS: [Only My Issues](#) [Recently Updated](#)

To Do	In Progress	Done
<ul style="list-style-type: none"> CALC-962 ⚠️ As a user, I can calculate add positive numbers v3.0 - NOTRUN CALC-970 ⚠️ calculator screen does not show anything CALC-1234 ⚠️ prepare v3.0 release artifacts 	<ul style="list-style-type: none"> CALC-1232 ⚠️ regression tests for v3.0 CALC-983 ⚠️ As a user, I can calculate the sum of 2 numbers v3.0 - NOK CALC-995 ▶️ Sub Test Execution for CALC-983 	<ul style="list-style-type: none"> CALC-1178 ⚠️ As a user, I can calculate the sum of 2 numbers v3.0 - OK CALC-1184 ⚠️ sample addition tests for v3.0 CALC-1185 ▶️ Test Execution for Test Plan CALC-1184 CALC-1186 ⚠️ calculator crashed CALC-1187 ▶️ Test Execution for Test Plan CALC-1184

Reports as deliverable assets



Use Xporter to generate fully customizable Word, Excel or PDF files with your testing reports to give to your management, colleagues or to your customers (e.g. Test specification, Test Execution progress and respective results, Test Plan details).

1. Introduction

1.1. Document Overview
This Test Report provides a summary of a test execution. This document has been generated automatically from the test management platform.

1.2. Test Execution XPORTER-198 Details

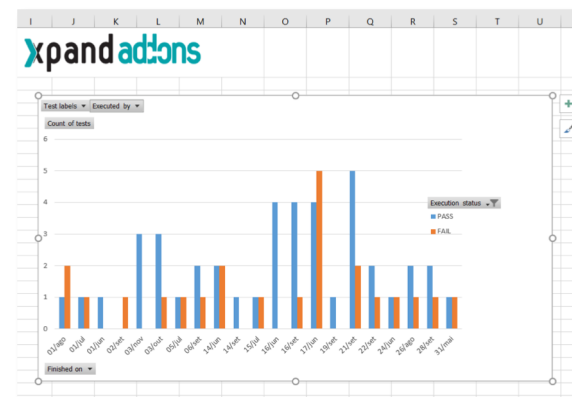
Description: This Test Execution purpose is to check if all the Xporter for JIRA features supported on the 3.1.0 release are working as expected on Internet Explorer

Begin Date
End Date
Revision

1.3. Overall Execution Status
Of the 12 Test Runs contained on XPORTER-198:

TODD	75.01 %
EXECUTING	8.33 %
PASS	0.0 %
FAIL	8.33 %
ABORTED	8.33 %

TEST EXECUTION - AUTOMATICALLY GENERATED



1.4. Test Runs

Key	Summary	Test Type	#Req	#Def	Test Sets	Assignee	Status
XPORTER-138	Xporter for JIRA - French Language translation	Manual	3	0		rmbr	ABORTED
XPORTER-137	Xporter for JIRA Workflow Post Function	Manual	4	1	XPORTER-470	pamp	TODD
XPORTER-133	Xporter for JIRA License Management	Manual	4	0	XPORTER-370 XPORTER-470	mjbm	TODD
XPORTER-102	Xporter for JIRA Permission Schemes Test	Manual	6	0	XPORTER-370 XPORTER-470	lpsg	EXECUTING
XPORTER-99	Xporter for JIRA Manage Templates Test	Manual	7	1	XPORTER-470	pmmr	FAIL
XPORTER-95	Xporter for JIRA Global Settings - Global Permissions - Show Xporter Menu	Manual	5	0	XPORTER-370 XPORTER-470	mjbm	TODD
XPORTER-92	Xporter for JIRA Global Settings - Global Permissions - Allow anonymous requests	Manual	5	0	XPORTER-370 XPORTER-470	mjbm	TODD
XPORTER-91	Xporter for JIRA Global Settings - Global Permissions - Enable Xporter for JIRA for all projects and all users	Manual	7	0	XPORTER-370 XPORTER-470	mjbm	TODD
XPORTER-89	Xporter for JIRA Global Settings - Bulk Export - Requests limit	Manual	7	0	XPORTER-470	mjbm	TODD
XPORTER-86	Xporter for JIRA Global Settings - Bulk Export -	Manual	7	0	XPORTER-470	mjbm	TODD

TEST EXECUTION - AUTOMATICALLY GENERATED

3. How are Automotive companies using Xray?

Xray in the Automotive sector

Traditional Manual Testing

- regression
- non automatable or hard to automate tests

Automated Testing Visibility (>> increasing a lot)

- firmware testing
- hardware integration testing

4. Xray v3.2

Needs

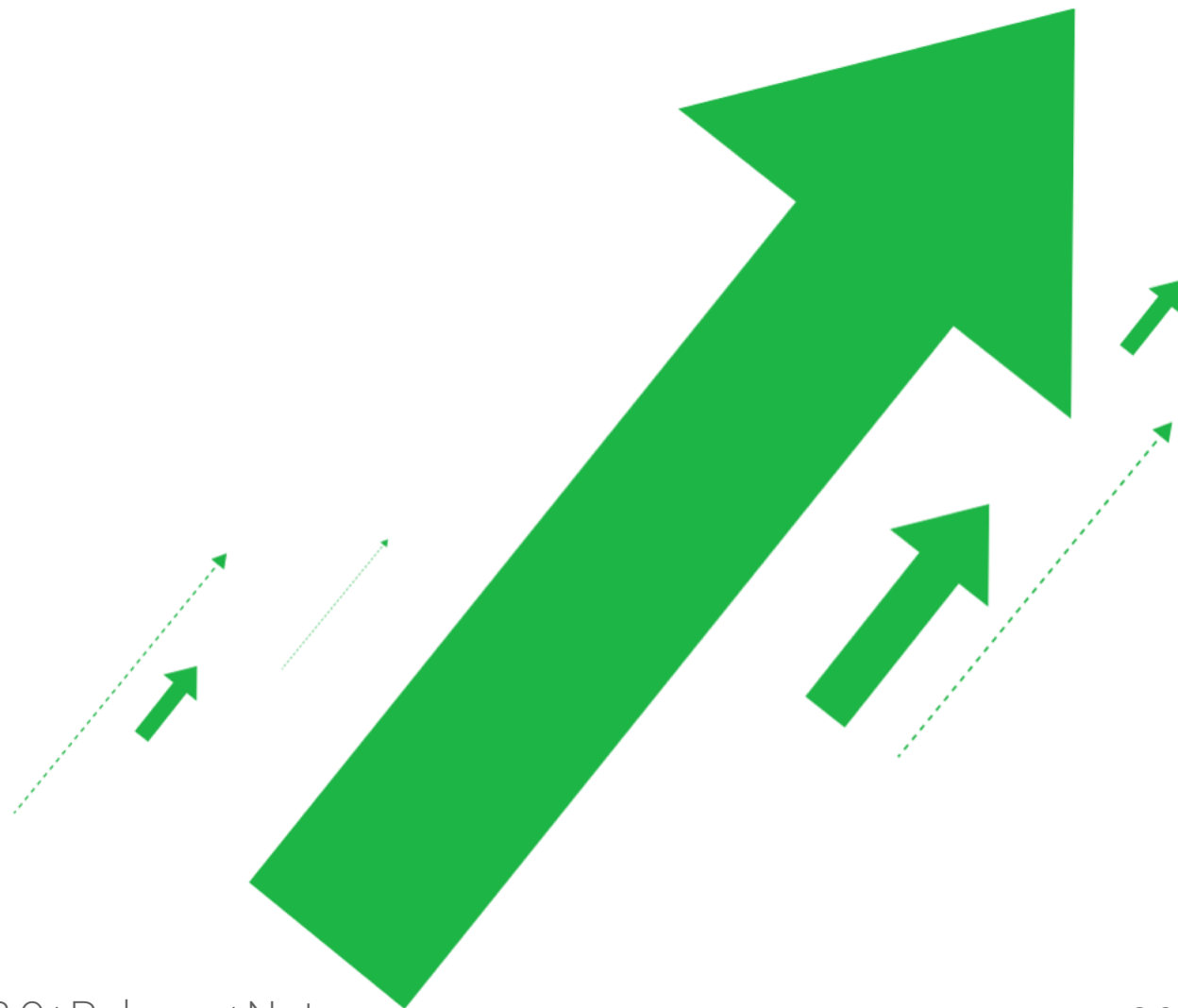
- A. *Our Jira instance is huge and getting not so fast. Anything we can do about it?*
- B. *It's hard to write Cucumber Tests in Jira; it needs to be friendlier and more productive...*
- C. *We have a bunch of environments. It is possible to manage their availability, status, etc?*
- D. *We need clear insight of current progress of requirements and testing...*
- E. *I need to see Tests across different folders, filter them out and do operations on them*
- F. *I want (or don't want) to get notified upon changes on Test's (Pre-Conditions) specification*

Xray 3.2 in Numbers

- 40 user stories implemented
- 26 bugs fixed

And between 3.1 and 3.2...

- 57 bugs/performance improvements fixed



Don't worry, de did not change the tire...



We've changed the motor!

Performance Improvements

Overview of what we've done:

- Pre-calculate data and use Lucene to index items by coverage
- Fetch only needed data, when needed (e.g. Reports)

Implemented:

- Test Plans issue screen with > 1000 Tests is up **50% faster**
- Test Repositories an TP Board with >1000 folders load **80% faster**
- REST API calls paginated and limited

Many enhancements coming ahead:

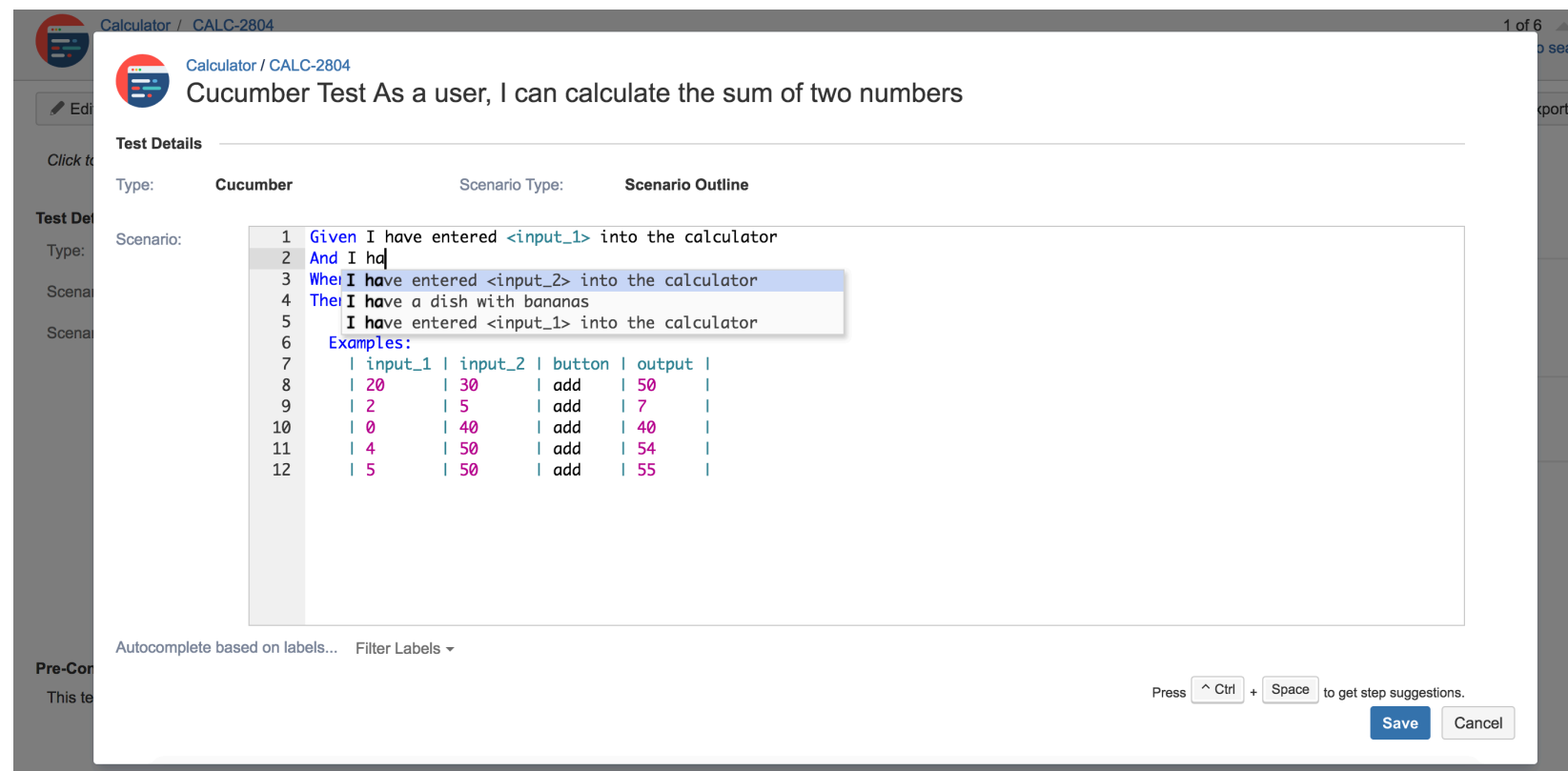
- Overall & Historical Requirement Coverage Report/Gadget
- more...



Enhanced edition for Cucumber

BDD simplified

- Enhanced near full-screen editor for Cucumber Tests/Pre-Conditions
- Step autocompletion, on a per-project basis



Calculator / CALC-2804

Calculator / CALC-2804

Cucumber Test As a user, I can calculate the sum of two numbers

Test Details

Type: Cucumber Scenario Type: Scenario Outline

Scenario:

```
1 Given I have entered <input_1> into the calculator
2 And I ha
3 When I have entered <input_2> into the calculator
4 Then I have a dish with bananas
5 I have entered <input_1> into the calculator
6 Examples:
7 | input_1 | input_2 | button | output |
8 | 20      | 30      | add    | 50      |
9 | 2       | 5       | add    | 7       |
10 | 0       | 40      | add    | 40      |
11 | 4       | 50      | add    | 54      |
12 | 5       | 50      | add    | 55      |
```

Autocomplete based on labels... Filter Labels ▾

Press **Ctrl** + **Space** to get step suggestions.

Save Cancel

Automated Steps Library

BDD simplified

- Easy refactoring of steps
 - update steps => all Tests/Pre-Conditions will be updated
 - merge => => all Tests / Pre-Conditions will be updated
- Steps auto-provisioning
- No more orphaned steps!
- Track used steps => easily obtain the Tests/Pre-Conditions using them
- Best of all? It's... *automatic* 😊

The screenshot shows the 'Automated Steps Library for project Calculator' interface. It features a search bar at the top right. Below it is a 'Filter Labels' dropdown menu. The main area displays a list of steps with their labels and associated tags. The first step is 'I have entered <input_2> into the calculator' with a 'core' tag. The second step is 'I press <button>' with a 'None' tag. The third step is 'I wait 10 seconds' with a 'timing' tag. The fourth step is 'the dish should have food' with a 'core' tag. The fifth step is 'I have a dish with bananas' with a 'None' tag. The sixth step is 'I have entered <input_1> into the calculator' with 'UI' and 'core' tags. The seventh step is 'the result should be <output> on the screen' with no tags. On the right side, there is a detailed view of the selected step: '1 I have entered <input_2> into the calculator'. Below this, it states 'This step is being used in 6 Test(s) or Pre-Condition(s)'. At the bottom right, there are 'Save' and 'Cancel' buttons.

Integration with Apwide Golive

- Enhanced management for Test Environments
 - attributes
 - availability
 - version deployed
 - permissions
- Plan Test Executions and Test Plans on a Timeline
- Assess environment information across several screens of Xray

The screenshot displays the Xray interface for a 'July Release'. At the top, there are tabs for 'APP eCommerce', 'CAT Dev1', 'CAT Staging', and 'CAT Production'. Below this is a timeline view for July 2018 (W29), showing various tasks and their durations. A red circle highlights a green bar labeled 'ECP-212 UAT July Release' with a yellow 'IN PROGRESS' tag. Other tasks include 'Data refresh', 'Deployme ECOM 3.7', 'Load testing SLOW', 'Security scan SLOW', and 'Deployme ECOM 3.7'. A 'Go-live' button is visible at the bottom right of the timeline.

Below the timeline, a 'Details' panel is open for the selected test execution. It shows the following information:

- Type: Test Execution
- Priority: Major
- Affects Version/s: ECOM 3.7
- Labels: NRT, SummerRelease
- Test Plan: ECP-213
- Test Environments: PAYMENT STAGING, ECOMMERCE STAGING
- Status: IN PROGRESS (View Workflow)
- Resolution: Unresolved
- Fix Version/s: None

The 'Description' section for 'eCommerce Staging' includes a URL and a description of the environment. The 'Tests' section shows an overall execution status of 2 PASS, 1 FAIL, and 2 EXECUTING. A table at the bottom lists deployments and status changes:

Version	Deployed	By
ECOM 3.6	2018-10-02 15:15	admin
ECOM 3.5	2018-06-06 07:49	dberclaz

[Video](#)

Additional gadgets

Requirements List

- analyze requirements
- track the completeness
- see hierarchical relation (Epic > Story)

Requirements List: Calculator Requirements - (v3.0)(All Environments)								
Key	Summary	Status	Fix Version	Total	Passed	Failed	Others	Completeness
CALC-2801	As a user, I can calculate the sum of two numbers	OK	v3.0	3	3	0	0	100%
CALC-2797	story1	NOTRUN		1	0	0	1	0%
CALC-2778	As a user, I can calculate the sum of two numbers	OK	v3.0	3	3	0	0	100%
CALC-2769	dummy story1	NOK	v3.0	1	0	1	0	0%
CALC-2743	As a user, I can calculate the sum of two numbers	NOK	v3.0	3	2	1	0	66.7%
CALC-2733	As a user, I can calculate the sum of two numbers	NOK	v3.0	3	2	1	0	66.7%
CALC-2726	As a user, I can calculate the sum of two numbers	NOK	v3.0	3	0	1	2	0%
▼ CALC-2703	arithmetic operations	OK	v3.0	3	3	0	0	100%
CALC-2607	As a user, I can calculate the sum of two numbers Serg	OK	v3.0	3	3	0	0	100%
CALC-2630	As a user, I can calculate the sum of two numbers	NOTRUN	v3.0	4	3	0	1	75%
CALC-2619	story2	OK	v3.0	1	1	0	0	100%

Additional gadgets

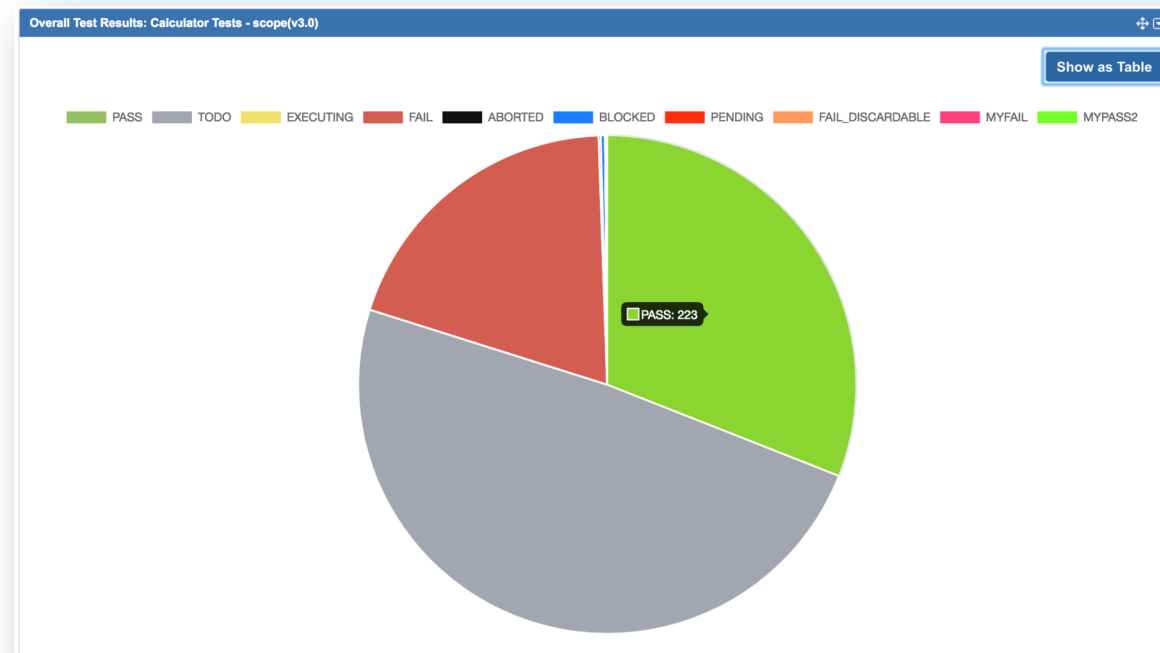
Overall Test Results

- analyze the relevant Tests for a release/Test Plan, on a specific Test Environment
- analyze overall progress of a Test Plan
- analyze a subset of Tests in some scope

Overall Test Results: Calculator TP1232 Tests - scope(v3.0)

Show as Chart

PASS	TODO	EXECUTING	FAIL	ABORTED	BLOCKED	PENDING	FAIL_DISCARDABLE	Total
0	6	0	4	0	0	0	0	10
0 %	60 %	0 %	40 %	0 %	0 %	0 %	0 %	100 %



Flat View for Test Repository & Test Plan Board

As more and more people use the hierarchical test organization via the Test Repository and the Test Plan Board, we introduce a new flattened view for easy visualization and selection.

The screenshot displays the 'Test Repository for project Calculator' interface. On the left, a sidebar shows a hierarchical tree view with folders like 'All' (742), 'Orphans' (79), 'Test Repository' (663), and sub-folders under 'Test Repository' such as 'components' (7 (32)), 'UI' (12 (12)), 'core' (3 (3)), 'compA' (2 (2)), 'compX' (8 (8)), 'arithmetic ...' (3 (3)), 'core' (0 (0)), 'DV' (0 (5)), 'BI_related' (0 (4)), and 'other_tests' (576 (576)). The 'components' folder is selected.

The main area shows a flat view of test cases under the path 'Test Repository / components'. It lists three test cases:

- Test Repository / components / core**
 - CALC-658** test addition in shell script (GENERIC) - OPEN · core · OUTSOURCED
 - CALC-902** Cucumber Test As a user, I can calculate the sum of 2 numbers (CUCUMBER) - OPEN · core · None
 - CALC-1988** Another, yet simple Test Case (MANUAL) - OPEN · None · None
- Test Repository / components / compA**
 - CALC-1896** Simple Test Case (MANUAL) - OPEN · core · None
 - CALC-1757** Power connector (MANUAL) - OPEN · core · A
- Test Repository / components / compX**
 - CALC-2058** Simple Test Case1 (MANUAL) - OPEN · core · None

Each test case entry includes an 'OPEN' button, a status icon, a title, a description, and a category tag (GENERIC, CUCUMBER, or MANUAL). The interface also includes a 'Filter' dropdown and a 'Showing 32 of 32 entries' indicator.

Email notifications

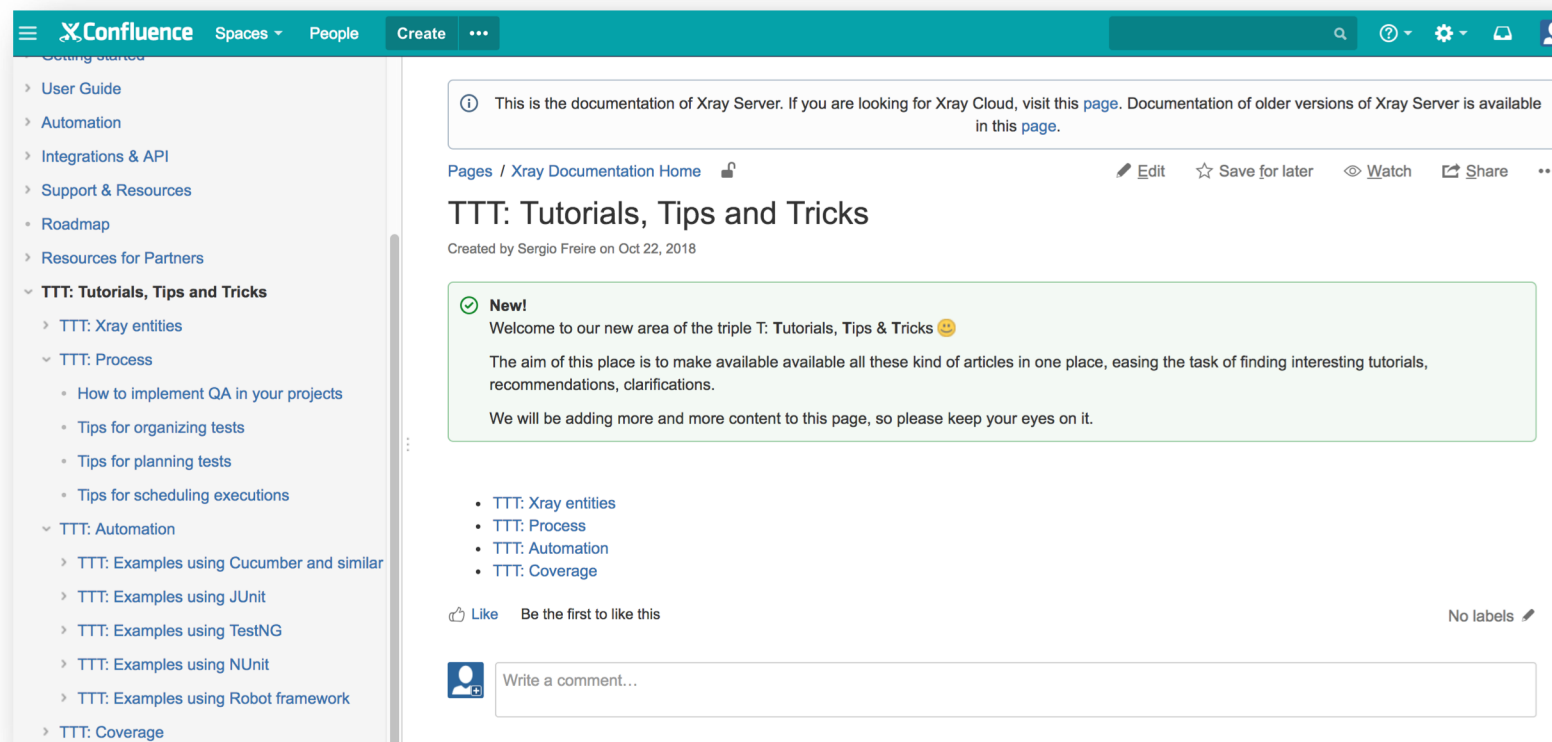
Greater control for changes on the specifications of Tests and Pre-Conditions

- Notifications may be configured for a specific event “Test or Pre-Condition Updated”, triggered upon:
 - adding/removing/updating steps in Manual Tests
 - updating the "Generic Test Definition" of Generic Tests
 - updating the "Cucumber Scenario" of Cucumber Tests
 - updating the "Conditions" of Pre-Conditions.

Test Run Assigned	• Current Assignee (Delete)	Add
Test Run Status set to Final	• Current Assignee (Delete)	Add
Precedent Test Run Status set to Final	• Current Assignee (Delete)	Add
Test or Pre-Condition Updated	• Current Assignee (Delete)	Add

TTT – Tutorials, Tips and Tricks

A special place in our documentation with many tutorials, tips and tricks.



The screenshot shows a Confluence page with a teal header. The left sidebar contains a navigation menu with categories like 'User Guide', 'Automation', and 'TTT: Tutorials, Tips and Tricks'. The main content area features a warning banner at the top, followed by the page title 'TTT: Tutorials, Tips and Tricks' and its creation date. A green 'New!' callout box contains a welcome message and the purpose of the page. Below this is a bulleted list of sub-topics and a 'Like' button.

This is the documentation of Xray Server. If you are looking for Xray Cloud, visit this [page](#). Documentation of older versions of Xray Server is available in this [page](#).

Pages / Xray Documentation Home

TTT: Tutorials, Tips and Tricks

Created by Sergio Freire on Oct 22, 2018

New!
 Welcome to our new area of the triple T: Tutorials, Tips & Tricks 😊
 The aim of this place is to make available available all these kind of articles in one place, easing the task of finding interesting tutorials, recommendations, clarifications.
 We will be adding more and more content to this page, so please keep your eyes on it.

- [TTT: Xray entities](#)
- [TTT: Process](#)
- [TTT: Automation](#)
- [TTT: Coverage](#)

Like Be the first to like this No labels

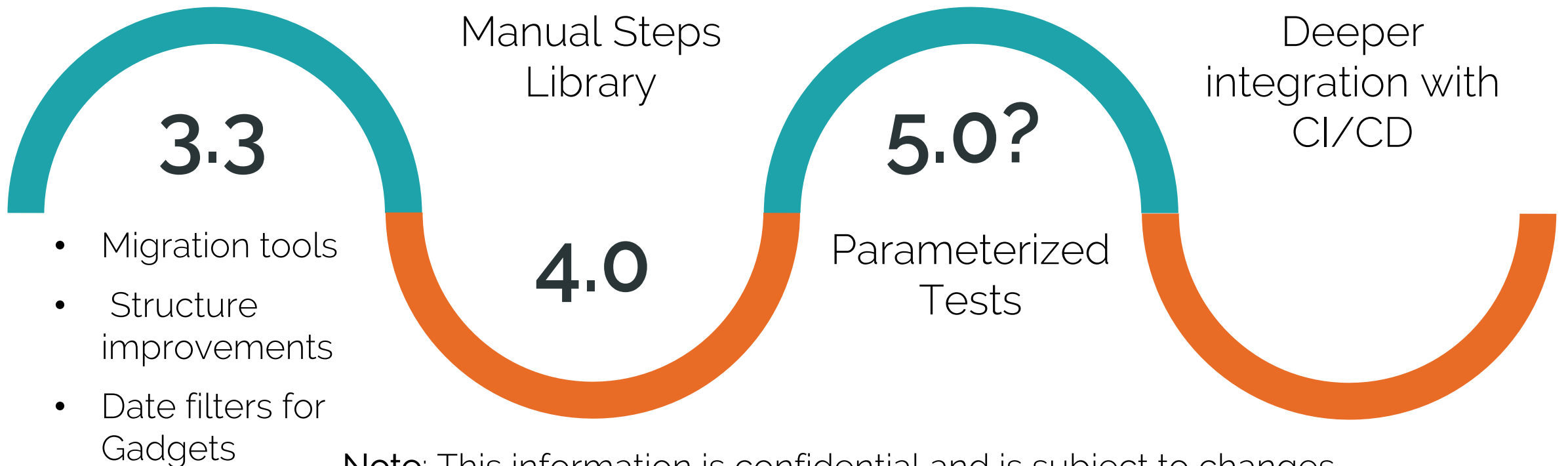
Write a comment...

<https://confluence.xpand-it.com/display/XRAY/TTT%3A+Tutorials%2C+Tips+and+Tricks>

5. More on the “road”

—

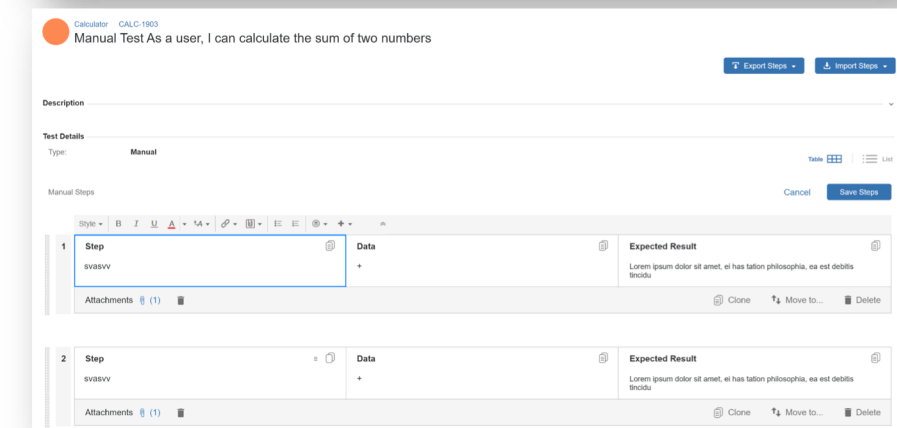
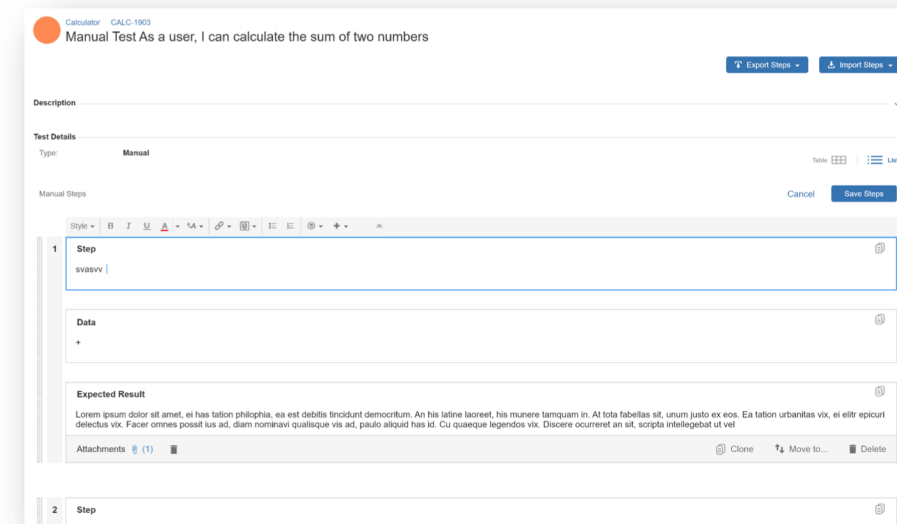
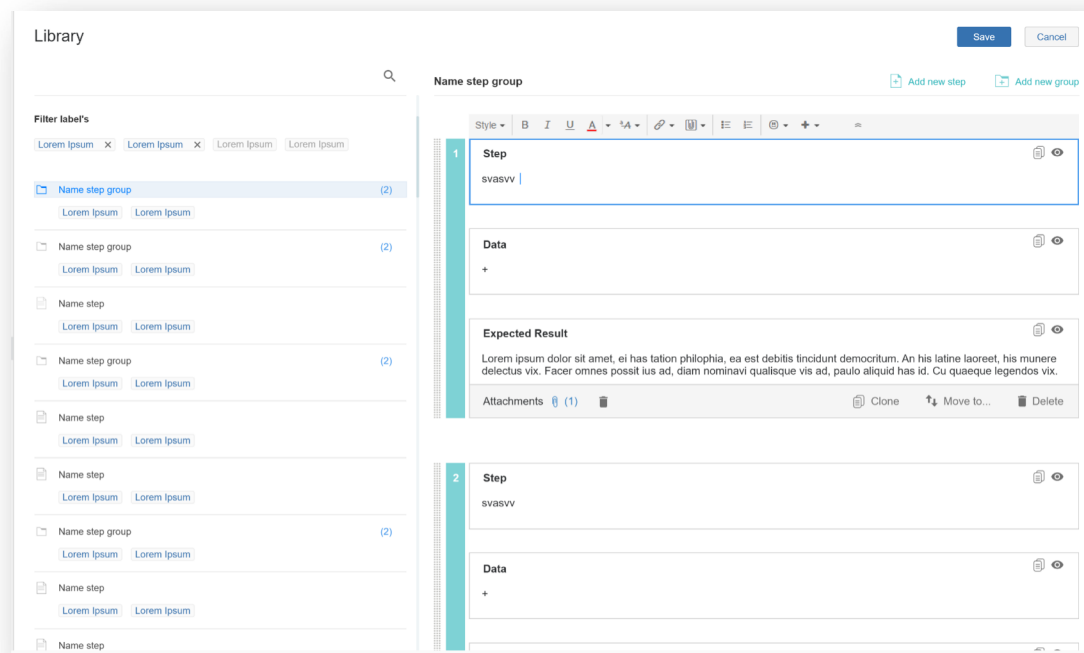
Xray Server Roadmap



Note: This information is confidential and is subject to changes.

Manual Steps Library (Sneak Peek)

1. Enhanced editor with Grid and List views
2. Shared steps
3. Shared groups of steps



6. Additional Resources

—

Resources

- Xray documentation
 - <http://confluence.xpand-it.com/display/XRAY>
- Xray web site & blog
 - getxray.app
 - getxray.app/blog/
- Xray in social networks
 - [Twitter](#)
 - [Facebook](#)
 - [LinkedIn](#)
 - [YouTube](#)
- Xray Sandbox (shared environment)
 - <http://sandbox.xpand-it.com>

7. Q&A



APOLLO
13

APOLLO
13

NASA



Happy Testing!

Thank you!