Xray 5.1.0 Release Notes

6 September 2021

The Xray team is proud to announce the release of **Xray 5.1**.

This version's features include new capabilities for importing execution results using the **Xray JSON format** and the **JUnit XML format,** supporting the **Actual Results field** when creating defects and improvements on **datasets.**

est version

Upgrade Notes

Upgrading Xray to 5

If you are upgrading from a version lower than 3.2, this implies that an upgrade task will run to pre-calculate historical data. This is a one-time action that will run in the background so that Xray is still available during the upgrade. A **re-index** operation of your Jira instance is required so that the internal data becomes searchable and usable by Xray.

⚠ Please be aware that this upgrade task will run <u>immediately</u> after updating Xray. As this operation can take some time and use a considerable amount of server resources, we suggest scheduling the upgrade of Xray outside of business hours. It is always possible to cancel the recalculation operation in the Xray configuration section Custom Fields Maintenance.

If you are upgrading from v3.2.x or v3.3.x to v5, you must recalculate data in the Xray configuration section Custom Fields. This recalculation is necessary because of the huge improvement in the amount of data that Xray needs to add to the table and to the Lucene indexes.

⚠ As this operation can take some time and use a considerable amount of server resources, we suggest scheduling the upgrade of Xray and the recalculation of the custom fields, outside of business hours.

Downgrading from Xray 5

Downgrading from Xray 5.x.x to a previous version will have the following side-effects on Test Runs with a dataset:

- Test parameters will no longer be converted on the Test Run page, this includes Test Step definitions and Pre-Conditions;
- When loading a Test Run created on version 5.x.x, the merge/reset message will be displayed;
- When merging a Test Run created on version 5.x.x with the new Test Step definition, all Test Step results will be updated but the reset/merge message will still be displayed;
- A Test Run created on version 5.x.x with iterations will be displayed in a "flat mode." The iterations will no longer be available and all the Test Step results from each iteration will be presented on the Test Steps section;

- After the downgrade, the integrity checker will fail on "Check for invalid Mementos" for all Test Runs created on version 5.x.x. We recommend running the integrity checker before downgrading to get rid of possible invalid mementos.

The Test Step Custom Fields and Test Run Custom Fields of the type "User Picker" will have to be deleted in the project configuration as they are not supported. Following that, the Test Runs that are using a User Picker field will have to be merged or reset. This includes Test Runs that have the field for the Test Run itself and also Test Runs for Manual Tests where the Test Steps contained the User Picker field. Downgrading from Xray 5.x to a version less than 3.2.0 implies that you must perform a re-index afterward. This is because from Xray 3.2.0 onwards, the content and format of what Xray indexes have changed.

Historical Coverage Gadget

Some configuration parameters for this gadget were modified as a result of supporting multiple projects whenever using a saved filter as a source. It is possible that some users will get errors on the gadget after downgrading from 4.x. If this happens, please edit the configuration to ensure the gadget is configured properly.

Release highlights

New Xray JSON format capabilities


```
113                     "contentType": "image/jpeg"
114                 }
115             },
116             "testInfo": {
117                 "summary": "Strong password validation",
118                 "type": "Manual",
119                 "projectKey": "STORE",
120                 "steps": [
121                     {
122                         "action": "Open the Change Password screen by selecting option \"My Profile > Password\"",
123                         "data": "",
124                         "result": ""
125                     },
126                     {
127                         "action": "Fill the password fields with data",
128                         "data": "Current Password: ${Password}\nNew Password: ${Password}\nConfirm New Password: ${Password}",
129                         "result": "The new password is: ${Valid}\nError:\n${Message}"
130                     }
131                 ]
132             },
133             "iterations": [
134                 {
135                     "name": "Iteration 1",
136                     "parameters": [
137                         {
138                             "name": "Password",
139                             "value": "2635ftvu23v7t!09"
140                         },
141                         {
142                             "name": "Valid",
143                             "value": "Valid"
144                         },
145                         {
146                             "name": "Message",
147                             "value": ""
148                         }
149                     ],
150                     "log": "Password changed successfully",
151                     "status": "PASSED",
152                     "steps": [
153                         {
154                             "comment": "",
155                             "actualResult": "",
156                             "status": "PASSED"
157                         },
158                         {
159                             "comment": "",
160                             "actualResult": "Password changed successfully",
161                             "status": "PASSED"
162                         }
163                     ]
164                 },
165                 {
166                     "name": "Iteration 2",
167                     "parameters": [
168                         {
```

When importing execution results using the Xray JSON format, you can create tests automatically by providing a **tes tInfo** element along with the test specification. Xray will only create the tests once since consequent imports of the same report will reuse the same test issues and generate new executions for the results. Manual and BDD tests are matched by summary and Generic tests by the generic definition within the same project.

Xray brings you the ability to **import data-driven test results** into manual tests. A dataset within the execution will automatically be created based on the iterations that are being imported.

Learn more about this feature here.

JUnit extension

We have created an extension for JUnit in order to provide much-needed information to Xray when importing execution results such as:
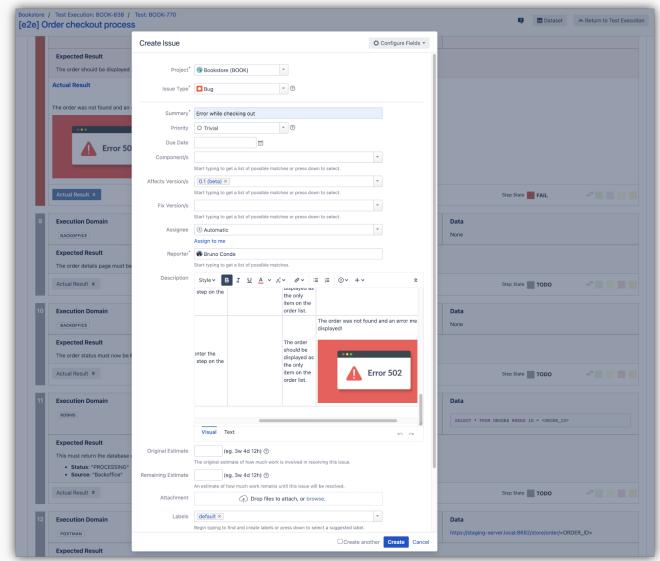
- tracking started and finished date timestamps for each test
- linking a test method to an existing Test issue or use auto-provisioning
- covering a "requirement" (i.e. an issue in Jira) from a test method
- specifying additional fields for the auto-provisioned Test issues (e.g. summary, description, labels)
- attaching screenshots or any other file as evidence to the Test Run, right from within the test method
- adding comments on the Test Run, right from within the test method
- setting the values for Test Run custom fields, right from within the test method

You can find the extension on our Github page with instructions on how to install and use it.

Learn more here.

```
 2    @Test
 3    @XrayTest(key = "CALC-1000")
 4    @Requirement("CALC-1234")
 5    public void CanAddNumbers1() {
 6        (...)
 7    }
 8
 9    @Test
10    @XrayTest(
11        summary = "addition of two numbers",
12        description = "tests the sum of two positive integers")
13    @Requirement("CALC-1234")
14    public void CanAddNumbers2() {
15        (...)
16    }
17
```

The actual results field will now be included when creating defects

When creating defects for manual tests, Xray will now include the **actual results** field on the defect issue description as a new column for each step.

This will include any embedded images within the actual results field.
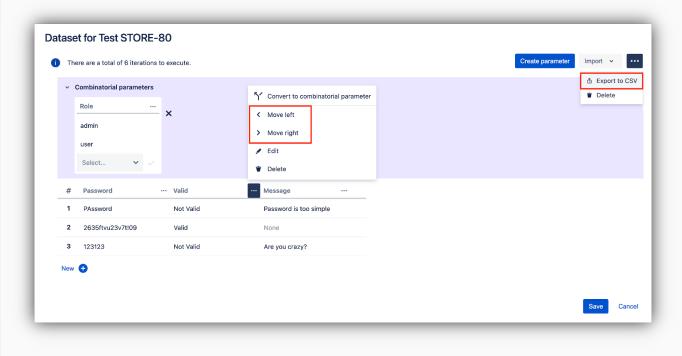
Learn more here.

Dataset improvements

Xray is now able to **export existing datasets into CSV**. This will allow you to edit the datasets outside of Jira and import them back again.

You can also **change the order** of parameters within a dataset.

The **default size** for the parameter values has increased to 100 chars. You can configure this size through the Xray global settings up to a maximum of 255 chars.

Learn more about parameterized tests here.

Dataset for Test STORE-80

There are a total of 6 iterations to execute.

Create parameter   Import ∨   •••

⤴ Export to CSV
🗑 Delete

Combinatorial parameters

Role   •••   ✕   ⋎ Convert to combinatorial parameter

admin   ‹ Move left
user   › Move right

Select... ∨ ✓   ✎ Edit
                                        🗑 Delete

#	Password	⋯	Valid	•••	Message	⋯
1	PAssword		Not Valid		Password is too simple	
2	2635ftvu23v7t!09		Valid		None	
3	123123		Not Valid		Are you crazy?	

New ⊕

Save   Cancel

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And more...

UI/UX Improvements

- XRAY-7871: UI Improvements to Web panel toolbars
- XRAY-7876: As a user, I can create a new Test Execution issue for a given requirement issue

REST API

- XRAY-7480: Export Execution Results - REST API should include Test Run Custom Fields results
- XRAY-7868: As a REST API user, I can export the dataset associated with a test in a given context

BDD

- XRAY-2528: Xray must support multiple examples tables for Cucumber Scenario outline Tests

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All New Features and Bug Fixes in this release

Key	Summary	T	Created	P	Status	Resolution
XRAY-5008	Enabling the option "Steps to reproduce" should include actual result	➕	Jan 30, 2020		SHIPPED	Done
XRAY-7895	Increase parameter value size limit	➕	Jul 12, 2021		SHIPPED	Done
XRAY-6392	Test issues must be created automatically when importing execution results using the Xray JSON format	➕	Aug 31, 2020		SHIPPED	Done
XRAY-2528	Xray must support multiple examples tables for Cucumber Scenario outline Tests	➕	Mar 06, 2018		SHIPPED	Done
XRAY-7037	Users must be able to import data-driven test results using the Xray JSON format	➕	Jan 22, 2021		SHIPPED	Done
XRAY-7871	UI Improvements to Web panel toolbars	➕	Jul 05, 2021		SHIPPED	Done
XRAY-7876	As a user, I can create a new Test Execution issue for a given requirement issue	➕	Jul 05, 2021		SHIPPED	Done
XRAY-7628	As a user, I can change the order of parameters within a Data Set	➕	May 11, 2021		SHIPPED	Done
XRAY-7868	As a REST API user, I can export the dataset associated with a test in a given context	➕	Jul 05, 2021		SHIPPED	Fixed
XRAY-7817	Users must be able to export a dataset to a CSV file	➕	Jun 23, 2021		SHIPPED	Done
XRAY-7439	Support Xray-JUnit extension format	➕	Apr 05, 2021		SHIPPED	Done
XRAY-3848	New executions cannot be created, if using a priority that doesn't belongs to the the Priority scheme associated with the project	🟥	Mar 21, 2019	⯅	CLOSED	Cannot Reproduce
XRAY-7737	Xray thread pool stales on large-scale Jira instances	🟥	Jun 04, 2021	⊖	CLOSED	Fixed
XRAY-7141	Support migrate data from Zephyr v6.2.x	🟥	Feb 12, 2021	⯅	CLOSED	Done

14 issues