

# Backup and Restore

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## Background

The full backup and restore operations supported by Jira are relatively straightforward and can be summed up as:

- [Backing up data](#) in Jira is performed in two different stages:
  1. Database Contents (the [recommended](#) option would be using Jira's XML backup utility; it is also possible to use native database backup tools);
  2. "data" directory.
- And the [Restoring data](#) process which is typically conducted towards the end of migrating Jira applications to another server or splitting Jira applications across multiple servers.

For restoring projects, Jira offers the "**Project Import**" tool which allows partial, project imports (i.e. importing a specific project from a previous backup).

This tool has some limitations though; it cannot transfer apps/add-ons related data between instances unless apps are prepared for it.

Fortunately, since v3.3, Xray is able of taking advantage of this mechanism; on previous versions, issues would be restored but the testing data wouldn't.

## Overview

[Since Xray v3.3](#), you can use Jira's "Project Import" tool in a seamless manner to import projects containing Xray related data. As simple as that.

Xray actively participates in the import process by extending the Jira's project import mechanism and **working out** how the missing data is mapped.

If we have an older version of Xray please update it in order to be able to perform the project backup&restore.

Project restoring is used in several scenarios; for example:

- for copying a project from one Jira instance to another Jira instance (e.g. from staging to production, or from internal to a DMZ instance)
- to restore a project upon some mistake/data loss has been done in that project within an existing Jira instance



### Please note

Restoring a project from a backup is particularly useful if you do not wish to overwrite the existing projects or configuration of your Jira instance by importing the entire backup.

As per Atlassian recommendation, if you wish to restore a project from a backup file into a **new empty Jira instance**, we highly recommend that you **do not use the Project Import tool**. Restoring the entire backup file into the new instance and then deleting unwanted projects is much simpler in this scenario, as you will retain the configuration settings from your backup. Instructions on moving a project to a new instance are available on the [splitting a Jira instance](#) page from Atlassian. Projects can be deleted via the 'Projects' page in Jira, which is accessed from the '\*Administration' menu.

## Before Using the Project Import Tool

Restoring a project from a backup is not a trivial task and you must be logged in as a user with the **Jira Administrators** [global permission](#).

There are some important aspects to take into consideration before importing a project:

- You may be required to change the configuration of your target Jira instance to accommodate the project import;
- **Is strongly recommended that you perform a full backup of your target Jira instance before attempting to restore a project into it;**
- Project Import data mapping can be resource intensive on your hardware and may take a long time to complete if you are importing a large project.

## Requirements and Limitations

Notes	Additional information
Your backup file <u>must</u> have been created using Jira's backup tool. You cannot import a project from a backup using your native database tools.	
The version of Jira in which the backup was created must be identical to the target Jira instance. <u>It is recommended to have also the same version of the apps on the target JIRA instance.</u>	<a href="#">Jira versions do not match.</a>
If the instance of Jira had any app/add-on having their own custom field installed when the backup file was created, and the custom field was used in your project, then your target instance of Jira must have the same version of the app installed for the Project Import tool to automatically work.	<a href="#">Custom fields plugin versions do not match.</a>
The Project Import tool will lock out your instance of Jira during the actual data import (not during the validations). Ensure that your instance does not need to be accessible during this time.	
You cannot import a project directly from Jira Cloud to Jira Server. The importer will display errors about version mismatches.	More information on migrating information from Xray Cloud to Xray server soon.
When importing test runs from modular tests, the test run mementos from test calls belonging to other projects won't be imported.  Ensure that the called tests belonging to other projects are imported first and then proceed with the import of the project containing the modular tests. If there are two-way dependencies between two projects regarding modular tests then the test run mementos for those modular tests won't be imported leading to incoherent test runs.	

## How to backup a project

Jira does not provide a project level backup utility; instead, it provides a global backup utility available in **System > Import & Export > Backup System**.

This utility makes a zipped content of a XML backup, that includes database contents and other data such data. However, some other data, such as attachments, won't be part of that zip; thus, you need to backup them by hand. More info on this procedure [here](#).

Having both the zipped XML backup along with the "data" contents, you can then do project level restoring afterward.

## Restoring a project

Jira's Project Import tool can create a project if one does not exist in your target Jira instance but it does not recreate any configuration settings that affect the data (e.g. screen schemes).

If you wish to retain any configuration settings from your original project, is recommended that you create an empty project in your target instance with the necessary configuration settings before importing the data from your backup project.

If the project you are restoring does not exist in your target Jira instance, the Project Import tool will create and populate the project with data from your backup.



### Please note

Ensure that your target Jira instance is prepared to receive a project import beforehand, namely in terms of configurations. More information [here](#).

## Importing a project

If you are confident that your Jira instance is set up appropriately, you can skip straight to the Jira's [Project Import tool](#) full instructions.

Here is a quick overview of the Project Import required steps after you open the Jira Project Import Tool in the Jira target instance.



#### Please note

If there are any problems mapping the data from your backup file to your target Jira instance, the Project Import tool will present validation errors for you to address.

## Select Backup & Select Project

Specify the backup file, select a project to restore and proceed to the "Import Validation" step.

The image shows a progress bar at the top with five steps: Select Backup (active), Select Project, Import Validation, Import Project, and Summary. Below the progress bar is the title "Project Import: Select Backup File". The main text states: "This tool allows you to import a single JIRA project from a backup file. This is a complex operation. Before you proceed, we recommend that you do the following:" followed by a bulleted list: "• read our [Project Import documentation](#)", "• do the project import on a test JIRA instance", and "• [back up](#) this JIRA instance (don't forget to back up the attachments as well)". Below the list, it says: "Enter the name of the JIRA backup zip containing the project data." and "Files will be loaded from: `/var/atlassian/jira/import`". At the bottom, it says: "Backup attachments will be loaded from: `/var/atlassian/jira/import/attachments`".



#### Backup

Make sure you have done a backup of the attachments in the origin Jira instance and moved it to the restore attachments directory in the target Jira instance.

Jira uses this to import the issue attachments, Xray will use it as well but to restore Test Run evidence and step attachments.

The Import Tool will tell you where the restore attachments directory is located.

### The Import Validation phase

In this step, you might get some messages about the necessary Jira related configurations.

Xray can also display some warning messages in this stage, namely about dependencies with other projects but these do not prevent the import process from continuing.



#### Xray warning messages

An example of this would be when you have a Test Plan associated with multiple Tests but the Test Plan and its Tests are in different Jira projects.

In such cases, Xray warns about this project dependencies but if you go ahead after the import is finished those dependencies will be missing because the dependency projects were not there yet. If you decide to import these other projects later, then XRAY will rebuild the dependencies.

On the other hand, if everything is in one project (Requirements, Tests, Test Executions, Test Plans, etc.), then you may not see this warning messages since everything will be imported at once.

If your project has some dependencies to other projects, then you also have to import those projects.

In the image below, you'll see an example where the project "REQ", that is currently being imported, had some dependencies to the project "XTP2".

Afterward, when the import of “REQ” is finished, we need to import “XTP2”. Xray then imports the entities of “XTP2” and rebuilds all the dependencies between “REQ” and “XTP2”.

Select BackupSelect ProjectImport ValidationImport ProjectSummary

Project Import: Pre-Import Summary - Requirement

The results of automatic mapping are displayed below. You will not be able to continue if any validation errors were raised.  
[Refresh validations](#) - re-maps and validates the backup data against the current state of JIRA.

System Fields

✓ Issue Type

✓ Custom Field Configuration

✓ Status

✓ Priority

✓ Resolution

⚠

There are "1" users that will be automatically created if the import continues.  
[View Details](#)

✓ Project Role

✓ Project Role Membership

✓ Group

✓ Issue Link Type

✓ Issue Security Level

✓ Attachments

✓ Text fields size

Custom Fields

✓ Cucumber Test Type

✓ Test Type

✓ Test Execution Defects

✓ Steps Count

✓ Epic Name

✓ Epic Status

✓ Sprint

✓ Epic Colour

✓ TestRunStatus

Plugins

✓ Xray Attachments

✓ Xray Pre-conditions

✓ Xray Test Sets

✓ Xray Test Plans

⚠

The project has Test Run Defects with dependencies to the following projects: XTP2. Please import them afterwards.

✓ Xray Test Run Requirements

⚠

The project has Test Runs with dependencies to the following projects: VER, XTP2. Please import them afterwards.

✓ JIRA Agile

PreviousImportCancel

## Import Project & Summary

After proceeding and finishing the Import Project step, you finally get to the Summary step where alongside with a sum up of Jira generic information, Xray will also display how many entities were imported.



### Project Import: Results

The project import completed successfully in 14 minutes.

#### Project Summary

Key:	XTP2
Project Type:	Business
Description:	
Lead:	Bruce Wayne
URL:	
Sender Address:	
Default Assignee:	Unassigned
Components:	1
Versions:	3
Test Steps created:	1276
Test Plans links created:	1931
Test Set links created:	150
Pre-Condition links created:	2
Test Execution Test Plan links created:	85
Test Runs created:	4782
Test Repository folders created:	21
Test Plan folders created:	31
Test Repository leafs created:	39
Test Plan leafs created:	331
Evidences created:	1
Manual Test Step attachments created:	129

#### Users

Users:	18 out of 18
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#### Project Roles

Administrators:	1 users, 0 groups
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#### Issues

Issues created:	1365 out of 1365
Attachments:	32 out of 32

OK