

# Export Cucumber Features

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Cucumber .feature files can be exported from Xray and executed externally. They can be generated from the following Xray issues:

- Test
- Test Set
- Test Execution
- Test Plan

Or, from an Issue mapped as a Requirement issue type.

If the **language** defined to export the cucumber .feature files is not the default (i.e., En), then a language tag will be added.

## Rules

Xray generates Cucumber .feature files according to the context issue and the following rules. The global setting "**Generate features by requirements**" affects how feature files are generated. If this setting is disabled, Xray will ignore the connection between Requirements and Tests.

### Considering Requirements associated with Tests ("Generate features by requirements" setting is **enabled**)

#### Test

- A single Cucumber **feature** file is generated for each **requirement** associated with this Test.
- The feature contains the **feature header** description of the associated requirement, if present.
- The feature contains the **background** of the Test, if present in the Pre-Condition associated with it.
- The feature contains the **Scenario/Scenario Outline** defined in this Test.

#### Test Set, Test Execution, Test Plan or Requirement issue

- A single Cucumber **feature** file is generated for each different tuple (**Requirement, Pre-Condition**).
- A Test Execution does not contain repeated tests.
- If a Test is not associated with a requirement, then it will be exported as an independent feature file.
- If a Test is associated with more than one requirement, then a feature file will be generated for each requirement. The generated .feature files will contain repeated test scenarios.
- The feature contains the **feature header** description of the associated requirement, if present.
- The feature contains the common **background** of the Tests, if present in the Pre-Condition.
- The feature contains the **Scenario/Scenario Outline** for all the tests.

### Ignoring Requirements associated with Tests ("Generate features by requirements" setting is **disabled**)

#### Test

- A single Cucumber **feature** file is generated for the Test.
- The feature contains the **background** of the Test, if present in the Pre-Condition associated with it.
- The feature contains the **Scenario/Scenario Outline** defined in this Test.

#### Test Set, Test Execution, Test Plan or Requirement issue

- A single Cucumber **feature** file is generated for each **Pre-Condition**. If there are some Test cases without Pre-Conditions that a **default** feature file will be generated.
- The feature contains the common **background** of the Tests, if present in the Pre-Condition.
- The feature contains the **Scenario/Scenario Outline** for all the tests.

## Feature File Format

```
[ #language: { language } ]

[ @{ Test Execution issue Key } ]

[ @{ Requirement issue Key } ]
Feature: [{ Requirement Issue Summary }]
    [{ Requirement Issue Description }]

    [Background:
        { Pre-Conditions }]

    [# { Test Issue Description }]
    @{ Test Issue Key }
    [{ SubRequirement Issue Key 1 } ... @{ SubRequirement Issue Key N }]
    [{ Test Set Issue Key 1 } ... @{ Test Set Issue Key N }]
    [{ Test Issue Label 1 } ... @{ Test Issue Label N }]
    Scenario [Outline]: { Test Issue Summary }
        {Test Issue Steps}
    ...
```

## Feature File Naming Convention

```
<sequential_id_one_based>[_<issue_requirement_key>][_<issue_precondition_key>]
```

## Example

Exporting a Test Execution with the following Tests:

Key	Requirement	Pre-Condition
T1	R1	C1
T2	R1	-
T3	-	C2
T4	R2	C1
T5	R2	C3
T6	-	-
T7	R2, R3	C1
T8	R2, R3	-
T9	-	C2
T10	R1	C1

generates the following 9 feature files when the "Generate features by requirements" setting is **enabled**:

File	Requirements	Pre-Condition	Tests	Filename
1	R1	C1	T1, T10	1_R1_C1.feature
2	R1	-	T2	2_R1.feature
3	R2	C1	T4, T7	3_R2_C1.feature
4	R2	C3	T5	4_R2_C3.feature
5	R2	-	T8	5_R2.feature

6	R3	-	T8	6_R3.feature
7	R3	C1	T7	7_R3_C1.feature
8	-	C2	T3, T9	8_C2.feature
9	-	-	T6	9.feature

and will also generate the following feature files when the "Generate features by requirements" setting is **disabled**:

File	Pre-Condition	Tests	Filename
1	C1	T1, T4, T7, T10	1_C1.feature
2	C2	T3, T9	2_C2.feature
3	C3	T5	3_C3.feature
4	-	T2, T6, T8	4.feature