

# Field codes and usage

## Overview

One of the most important features of **Automation Toolbox for Jira** is the easy accessibility to Jira data stored in system fields, custom fields and a significant number of other, virtual fields that are made available by the **Automation Toolbox for Jira** implementation. You can access, validate, do mathematical calculations and manipulate the values found in these fields through the use of **field codes**. These codes are unique identifiers (keys) to all available fields.

**Automation Toolbox for Jira** uses **field codes** in **triggers**, **conditions**, **selectors**, and **actions**:

- normal custom fields
- system fields
- parent fields available to all sub-tasks
- issue, project and user properties

Field codes are not only used as unique field identifiers, but they are also an important safety feature for the Jira instance. Custom fields, for instance, can be renamed and the names do not have to be unique, but using **Automation Toolbox for Jira** field codes make the fields you use in your rules immune to renaming.

You can choose the appropriate field codes by using the drop-down lists that **Automation Toolbox for Jira** makes available wherever **expressions** can be used.

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## Field code notation

Depending on the **context** in which they are being used, field codes will contain a prefix following this **notation**: **{origin.field/data}**.

Available **contexts** (or **origins**) in Automation Toolbox for Jira are:

Context	Description
Trigger	The <b>issue</b> , <b>user</b> , <b>version</b> , <b>component</b> or <b>project</b> <b>event</b> that <b>triggers</b> the execution of the <b>rule</b> .
Selector	The <b>issue currently being processed by the selector</b> . (e.g. an issue returned by a JQL query).  Selectors usually hold multiple issues. They will be processed iteratively one by one.
System	Some data does <b>not have an issue context</b> (e.g. the <b>currently logged in user</b> or the <b>system date and time</b> )

The **prefix**, denoting the **origin** (where the data should be **read from / written to**), is a referential part of the field code and **will be inserted into the expression** whenever you select a field from a dropdown list (as shown below).

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Here are some examples:

- **%{trigger.issue.description}**
- **%{trigger.parent.summary}**
- **%{trigger.project.lead}**
- **%{selector.issue.cf10021}**
- **%{system.currentUser}**

Field codes for Jira standard or system fields will display the attribute in a legible form like **%{trigger.issue.summary}**.



All selected **custom fields** will be notated like this `%{trigger.issue.cfnnnnn}` where `nnnnn` contains the Jira **custom field id**.  
Once an expression has been saved, the real name will be displayed in the configuration element.

The purpose of using the `cfnnnnn` notation is quite simple - **custom fields can be renamed**.

## Field codes: STRING vs. NUMBER

Field codes must always be enclosed by **curly brackets** (or braces) but if they are used for **text-strings**, the brackets must be preceded by a **percent sign %**.

NUMBER or **Date-Time fields** can be referenced as numbers using the following notation: `{so menumberfield}`. (**i** no preceding % sign)

STRING Any field type or data type is susceptible of being transformed to text, so **any field can be referenced as a text-string value** using the following notation: `%{somefield}`.

Cascading Select or Multi-Cascading Select fields, where `i` is the index that represents the level to be accessed. (`i = 0` is used for base level) are notated as `%{somefield.i}`.



A full list of available data types [can be found here](#).

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## Field codes in the documentation

Wherever field codes are used in the documentation they will be notated with **three periods (...)** instead of prefixes.

- `%{...summary}`
- `%{...cf10021}`
- `{...duedate}`

## Example of using field codes

The example below shows and expression usage in a Boolean Condition.

**Boolean Condition**

**Configuration**

Boolean expressions are **logical constructions** that return **true** or **false**.  
Processing of any actions, issue selections or additional conditions that are logically bound to this condition will be stopped if the condition returns false.  
If used in combination with a preceding selector, the boolean condition will be evaluated for each issue returned by the issue selector and thus determine the execution of configured actions.

Expression \*

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Select field

Insert field value

Click on Select field and then

- 1 - start typing the name of the field you wish to insert
- 2 - click on one of the fields provided in the drop-down list

The chosen field code will then be inserted into your parser expression where you can then enhance the expression with more fields or any other methods the expression parser allows.

The expression syntax will be evaluated as you create the expression. If the syntax is correct, a green check circle will appear.

In the above examples, we've chosen to add a Boolean Condition validating that the **Project key** of the issue being processed is not (!=) TEST.

After you **save** the function, the real field names will be displayed in the rule element.

In contrast to system or ATJ special virtual fields (which cannot be renamed), **custom fields** will be inserted into an expression with a different notation as seen below:

In this example, we've chosen the custom field "Sale Amount" to evaluate. In the expression, it is notated as **cf10900**. **10900** is the unique field id in the Jira configuration.

Once the element is saved, it appears with its real name.

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BOOLEAN CONDITION

Only if the following expression returns true

[Sale Amount Net: {Trigger}] > 1000

This condition is evaluated as user in field ASSIGNEE.

If at some point the field should be renamed i.e. Sale Amount Net, the expression will stay the same, but the element will now display the new name and the rule does not need to be updated.

For more detailed information on field availability and parser usage, please see the section on [Virtual fields](#).

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