

# Calculated Number Field

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## Calculated Number Field

This type of **read-only** custom field has a value which is dynamically calculated from a custom math/numeric expression. It can be used to obtain a numeric value depending on the value of other fields in current issue, or in any other issues: linked issues, sub-tasks, epics, stories, JQL selected issues, etc.



For stability reasons, self-referencing of the field to be configured is not allowed in basic mode. In all other modes, we do not recommend using the field code, except in special cases

## Configuration

### Math expression

This parameter contains a valid **math expression** that will be calculated each time the value of the field is required.

## Example 1: Calculated Number Field "Number of Blocking Issues"

In this example we show how to create a calculated number field called "**Number of Blocking Issues**" that will return the number of unresolved issues current issue is linked to with "**is blocked by**" issue link type.

- 1) Create a new Calculated Number Field custom field called "**Number of Blocking Issues**" at **Administration > Issues > Custom fields > Add Custom Field > Advanced > Calculated Number Field (by JWT)**
- 2) Go to configuration screen of the newly created custom field:

<b>Number of Blocking Issues</b>	Calculated Number Field (by JWT)	Issue type(s): Global (all issues)	• Default Screen
Short Text	Text Field (single line)	Issue type(s): Global (all issues)	<b>Configure</b>
Special Cascading Select	Select List (cascading)	Issue type(s): Global (all issues)	Edit
			Translate
			Screens
			Delete
			• Default Screen

- 3) Click on 'Edit Math/Numeric Expression':

The screenshot shows the JIRA Administration interface. The top navigation bar includes 'JIRA', 'Dashboards', 'Projects', 'Issues', 'Boards', and a 'Create' button. A search bar is also present. The 'Administration' section is active, with a sub-menu showing 'Applications', 'Projects', 'Issues' (selected), 'Add-ons', 'User management', and 'System'. The left sidebar lists various configuration categories: ISSUE TYPES, WORKFLOWS, SCREENS, and FIELDS. Under FIELDS, 'Custom fields' is selected. The main content area is titled 'Configure Custom Field: Number of Blocking Issues'. It explains that custom field configuration schemes are applicable for various issue types in a particular context. Below this, there are links to 'Add new context' and 'View Custom Fields'. A 'Default Configuration Scheme for Number of Blocking Issues' section shows the default configuration generated by JIRA. It lists 'Applicable contexts for scheme' as 'Edit Configuration' and 'Issue type(s)' as 'Global (all issues)'. A red arrow points to the 'Global (all issues)' text. The 'Math/Numeric Expression' is set to 'Edit Math/Numeric Expression', with a warning message: 'WARNING: Math/Numeric Expression not yet initialized.' The 'Display Format' is set to 'Edit Display Format' and is currently 'Number with default number format.' There are also icons for settings and deletion in the top right of the configuration area.

4) Configure the field by entering a **math/numeric expression**:

The screenshot shows the 'Math Expression' editor in JIRA. The title is 'Math Expression'. Below it, the text 'Math expression for Calculated Number field:' is displayed. On the right side, there are links for '[ Line 1 / Col 1 ]', 'Syntax Specification', and 'Check Syntax'. The main area is a code editor with a light blue background. It contains a single line of JQL: `count(filterByResolution(linkedIssues("is blocked by"), ""))`. The line is numbered '1' on the left.

5) Once configured, the configuration of the new custom field looks like this:

## Configure Custom Field: Number of Blocking Issues ?

Below are the Custom Field Configuration schemes for this custom field. Schemes are applicable for various issues types in a particular context. You can configure a custom field differently for each project context or in a global context. Moreover, project level schemes will over-ride global ones.

- [Add new context](#)
- [View Custom Fields](#)



### Default Configuration Scheme for Number of Blocking Issues

Default configuration scheme generated by JIRA

Applicable contexts for scheme: [Edit Configuration](#)

Issue type(s):  
Global (all issues)

Math/Numeric Expression: [Edit Math/Numeric Expression](#)

```
count(filterByResolution(linkedIssues("is blocked by"), ""))
```

Display Format: [Edit Display Format](#)

**Number** with default number format.

The math expression used in this example is: `count(filterByResolution(linkedIssues("is blocked by"), ""))`.

## Example 2: Calculated Number Field "Time to Due Date"

In this example we configure a calculated number field that will show the remaining time for Due Date:

### Default Configuration Scheme for Time to Due Date

Default configuration scheme generated by JIRA

Applicable contexts for scheme: [Edit Configuration](#)

Issue type(s):  
Global (all issues)

Math/Numeric Expression: [Edit Math/Numeric Expression](#)

```
{Due date} != null ? max({Due date} - {Current date and time}, 0) : null
```

Display Format: [Edit Display Format](#)

**Duration** with **short** format.

Field will be considered as **uninitialized** (i.e. will return **null**) when calculated value is **zero**.

We use the following math-time expression: `{00012} != null ? max({00012} - {00057}, 0) : null`, where **{00012}** is code for **Due date**, and **{00057}** is code for **Current date and time**.

Notes:

- Conditional operator `? :` : in order to avoid errors in the subtraction when **Due date** is not set. In this case we return `null`, i.e., not initialized.
- Function `max(x, y)` is used to avoid returning a negative duration when **Due date** has passed.

We select **duration** as display format, since the numeric value being calculated, a number of milliseconds, represents a time duration. This way the value is represented like **Time to Due Date**: 2d 9h 43m instead of a single number.

We also check parameter "**Uninitialized when calculated value is zero**", since we don't want the field to be shown once Due Date has been reached.

## Example 3: Field to show time since issue creation to resolution

In this example we configure a calculated number field for showing the time elapsed since issue creation to issue resolution. For issues which are still not resolved, the field will be uninitialized, thus it won't be shown in the view screen:

### Default Configuration Scheme for Time Taken

Default configuration scheme generated by JIRA

Applicable contexts for scheme: [Edit Configuration](#)

Issue type(s):  
Global (all issues)

Math/Numeric Expression: [Edit Math/Numeric Expression](#)

```
{Date and time of resolution} != null ? {Date and time of resolution} - {Date and time of creation} : null
```

Display Format: [Edit Display Format](#)

**Duration with short format.**

We use the following math-time expression: `{00112} != null ? {00112} - {00009} : null`, where **{00112}** is code for **Date and time of resolution**, and **{00009}** is code for **Date and time of creation**.

Notes:

- Conditional operator `? :` : in order to avoid errors in the subtraction when **Date and time of resolution** is not set. In this case we return `null`, i.e., not initialized.

We select "**Duration with short format**" as display mode. This way, the string value of the field will be something easily readable, like 1d 11h 30m, but the numerical value will be the duration expressed in milliseconds.

Other display options available are:

- **Duration with long format**: we get something like 1 day, 11 hours, 30 minutes.
- **Use time tracking settings**: we get duration displayed using the number of **working hours** per day, and the number of **working days** per week as configured in [time tracking](#), instead of 24 hours per day and 7 days per week.