

JWT expression parser functions

Jira Workflow Toolbox for Jira Cloud uses a powerful expression parser for interpreting **logical**, **mathematical**, **date-time** and **text** functions.

The following is a list of the available expression parser functions:

- [Dates and times](#)
- [Numbers](#)
- [Texts](#)
- [Lists](#)
- [Converting data types](#)
- [Users](#)



All available parser functions

Function name	Short description	Output
abs(number)	Returns the absolute value of the input number.	NUMBER
addDays()	Adds or subtracts days to or from any given date .	NUMBER
append()	Combines the elements of two lists .	NUMBER LIST TEXT LIST ISSUE LIST
avg()	Calculates the average values of a given number list.	NUMBER
ceil(number)	Returns the smallest mathematical integer that is greater than or equal to the input number.	NUMBER
count()	Returns the number of elements in a text, number or issue list.	NUMBER
datePart()	Returns the date part of any given date.	NUMBER
dateTimeToString()	Returns the timestamp of any given date in text form .	TEXT
dateToString()	Converts any given date to a text .	TEXT
dayOfMonth()	Returns the day of the month of any given timestamp .	NUMBER
dayOfWeek()	Returns the day of the week of any given timestamp.	NUMBER
distinct()	Removes all duplicates from a number, text, or issue list.	NUMBER LIST TEXT LIST ISSUE LIST
epic()	Returns all epics linked to specified issues.	ISSUE LIST
except()	Removes certain elements from a list.	NUMBER LIST TEXT LIST ISSUE LIST

fieldValue()	Returns a number or text list with field values .	NUMBER LIST TEXT LIST
filterByCardinality()	Filters a given number, text, or issue list by the number of occurrence of elements .	NUMBER LIST TEXT LIST ISSUE LIST
filterByIssueType()	Filters a given issue list by issue type .	ISSUE LIST
filterByProject()	Filters a given issue list by project .	ISSUE LIST
filterByResolution()	Filters a given issue list by resolution .	ISSUE LIST
filterByStatus()	Filters a given issue list by issue status .	ISSUE LIST
filterByValue()	Filters a number or text list using a given comparison .	NUMBER LIST TEXT LIST
findPattern()	Returns all substrings matching a given regular expression .	TEXT LIST
findPatternIgnoreCase()	Returns all substrings matching a given regular expression, ignoring the case .	TEXT LIST
findReplaceAll()	Replaces all occurrences of a given text with the given replacement.	TEXT
findReplaceAllIgnoreCase()	Replaces all occurrences of a given text with a given replacement, ignoring the case .	TEXT
findReplaceFirst()	Replaces the first occurrence of a given text with the given replacement.	TEXT
findReplaceFirstIgnoreCase()	Replaces the first occurrence of a given text with the given replacement, ignoring the case .	TEXT
first()	Returns the first element of a number, text, or issue list .	NUMBER TEXT ISSUE LIST
floor()	Returns the greatest mathematical integer that is less than or equal to the input number.	NUMBER
getFromJSON()	Returns the result of a given JMESPath which is applied to a JSON	TEXT
getMatchingValue()	Returns a custom reference value for a given or text or number .	NUMBER TEXT
hour()	Returns the hour part of any given timestamp .	NUMBER
intersect()	Returns common elements of two lists.	NUMBER LIST TEXT LIST ISSUE LIST
issueKeysToIssueList()	Converts a text containing issue keys to an issue list .	ISSUE LIST
issuesFromJQL()	Returns a list of issues returned by a specified JQL query .	ISSUE LIST
issuesUnderEpic()	Returns all issues linked to a given epic	ISSUE LIST
issueType()	Returns the name of the issue type with a given ID .	TEXT
jiraExpression()	Returns the result of a Jira expression .	TEXT

last()	Returns the last element of a number , text , or issue list .	NUMBER TEXT ISSUE LIST
length()	Returns the length any given text.	NUMBER
linkedIssues()	Returns a list of issues linked .	ISSUE LIST
matches()	Checks, if the given text matches the given regular expression .	BOOLEAN
max()	Returns the highest value in a number list.	NUMBER
max(numbers)	Returns the larger of two numeric values.	NUMBER
min()	Returns the smallest value in a number list.	NUMBER
min(numbers)	Returns the smaller of two numeric values.	NUMBER
minute()	Returns the minutes part of a given timestamp.	NUMBER
modulus(numbers)	Returns the remainder after division of the dividend by the divisor.	NUMBER
month()	Returns the month part of a given timestamp.	NUMBER
nthElement()	Returns the nth element of a number, text or issue list.	NUMBER TEXT ISSUE LIST
project()	Returns the key of the project with a given ID .	TEXT
projectId()	Returns the ID of the project with a given key or name .	NUMBER
random()	Returns a number between 0 and 1.0 .	NUMBER
replaceAll()	Replaces all substrings matching a regular expression with a given replacement .	TEXT
replaceFirst()	Replaces the first substring matching a given regular expression with a given replacement.	TEXT
resolution()	Returns the name of the resolution with a given ID .	TEXT
round(number)	Returns the closest integer to the input number.	NUMBER
second()	Returns the second part of a given timestamp .	NUMBER
siblingIssuesUnderEpic()	Returns all issues linked to a given epic	ISSUE LIST
sort()	Sorts a given list in a specific order.	NUMBER LIST TEXT LIST ISSUE LIST
status()	Returns a status name .	TEXT
stringToDate()	Converts a text into a date .	NUMBER
sublist()	Returns a defined extract of a given list .	NUMBER LIST TEXT LIST ISSUE LIST

<code>substring()</code>	Returns a specific part of a text.	TEXT
<code>subtasks()</code>	Returns the list of sub-tasks of the specified issue(s) .	ISSUE LIST
<code>sum()</code>	Sums up all values in a given number list.	NUMBER
<code>timePart()</code>	Returns the time part of any given date.	NUMBER
<code>toLogicalValue()</code>	Converts a text and lists to a logical value .	BOOLEAN
<code>toLowerCase()</code>	Converts a given text with all its characters to lower case .	TEXT
<code>toNumber()</code>	Converts a text to a number .	NUMBER
<code>toNumberList()</code>	Converts text to a number list .	NUMBER LIST
<code>toString()</code>	Converts numbers and lists to plain text .	TEXT
<code>toStringList()</code>	Converts text to a text list .	TEXT LIST
<code>toUpperCase()</code>	Converts a given text with all characters to upper case .	TEXT
<code>trim()</code>	Removes leading and trailing blanks (white spaces and tabs) from a text.	TEXT
<code>union()</code>	Returns distinct elements of two lists.	NUMBER LIST TEXT LIST ISSUE LIST
<code>userId()</code>	Returns the Atlassian account Id of given user(s).	TEXT TEXT LIST
<code>displayName()</code>	Returns the display name of a given user.	TEXT TEXT LIST
<code>year()</code>	Returns the year part of a timestamp.	NUMBER