

Operators

General Information

The expression parser accepts the most common operators. The operators listed below are available for the following [data types](#):

- [Numbers](#)
- [Strings](#)
- [Issue lists](#)
- [Number lists](#)
- [String lists](#)



Operators = and != are also available for type

BOOLEAN

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Case-sensitive operators

Operator	Meaning	Examples (all examples return true)
=	equal to	<pre>1 = 1 "HELLO" = toUpperCase("Hello") %{...description} = {...timeoriginalestimate}, auto-casting numeric field {...originalEstimate} to Text-String. %{...originalEstimate} = toString({...originalEstimate}), explicit casting of numeric field {...originalEstimate} to Text-String. true = true %{...cf10001} = null, for checking whether field with code %{...cf10001} is not initialized. [1, 2, 3] = [1, 2, 3], when used with lists elements existence and its order are evaluated. ["blue", "red", "green"] = ["blue", "red", "green"]</pre>
!=	not equal to	<pre>0 != 1 "HELLO" != "Hello" %{...description} != "Hello" true != false %{...cf10010} != null, for checking whether the numeric field with code {...cf10010} is initialized. [1, 2, 3] != [1, 3, 2], when used with lists elements existence and its order are evaluated. ["blue", "red", "green"] != ["blue", "green", "red"]</pre>
<	lower than	<pre>1 < 2 "abc" < "bbc" "abc" < "abcd"</pre>
>	greater than	<pre>2 > 1 "bbc" > "abc" "abcd" > "abc"</pre>
<=	less than or equal to	-
>=	greater than or equal to	-
~	contains	<pre>"Hello world!" ~ "world", checks whether a string contains a substring. %{...componentLeads} ~ %{...currentUser}, checks whether "Component leaders" contains "Current user". linkedIssues() ~ subtasks(), checks whether all sub-tasks are also linked to current issue. [1, 2, 3, 2, 2, 4] ~ [2, 1, 2], when used with lists cardinalities must match. ["blue", "red", "green", "red", "white", "red"] ~ ["red", "green", "red"] (["green", "red"] ~ ["red", "green", "red"]) = false</pre>

!~	doesn't contain	<p>"world" !~ "Hello world!"</p> <p>%{...fixVersions} !~ %{...versions} , checks whether "Fix version/s" doesn't contain all versions in "Affects version/s".</p> <p>fieldValue(%{...reporter}, linkedIssues()) !~ fieldValue(%{...reporter}, subtasks()) , checks whether linked issues reporters don't include all sub-tasks reporters.</p> <p>[1, 2, 3, 2, 2, 4] !~ [2, 1, 1, 4] , when used with lists cardinalities must match.</p> <p>["blue", "red", "green", "red", "red"] !~ ["red", "green", "green", "red"]</p>
in	is contained in	<p>"world" in "Hello world!" , to check whether a substring is contained in a string.</p> <p>%{...currentUser} in %{...componentLeads} , checks whether "Current user" is contained in "Component leaders".</p> <p>subtasks() in linkedIssues() , checks whether all sub-tasks are also linked to current issue.</p> <p>[1, 1, 2] in [2, 1, 1, 1, 4] , cardinality must match.</p> <p>["blue", "red", "red"] in ["red", "green", "blue", "red", "red"] , cardinality must match.</p> <p>2 in [1, 2, 3]</p> <p>"blue" in ["red", "blue", "white"]</p>
not in	isn't contained in	<p>"Hello world!" not in "world"</p> <p>%{...versions} not in %{...fixVersions} , checks whether not all versions in "Affects version/s" are contained in "Fix version/s".</p> <p>fieldValue(%{...reporter}, subtasks()) not in fieldValue(%{...reporter}, linkedIssues()) , checks whether not all sub-tasks reporters are included in linked issues reporters.</p> <p>[1, 1, 2, 2] not in [2, 1, 1, 1, 4] , cardinality must match.</p> <p>["blue", "red", "red", "blue"] not in ["red", "blue", "red", "red"] , cardinality must match.</p> <p>5 not in [1, 2, 3, 3, 4]</p> <p>"orange" not in ["blue", "red", "white"]</p>
any in	some element is in	<p>%{...versions} any in %{...fixVersions} , checks whether any version in "Affects version/s" is contained in "Fix version/s".</p> <p>fieldValue(%{...reporter}, subtasks()) any in fieldValue(%{...reporter}, linkedIssues()) , checks whether any sub-task's reporter is present among linked issues reporters.</p> <p>[1, 3] any in [3, 4, 5]</p> <p>["blue", "white"] any in ["black", "white", "green"]</p>
none in	no single element is in	<p>%{...versions} none in %{...fixVersions} , checks whether there isn't a single version "Affects version/s" in "Fix version/s".</p> <p>fieldValue(%{...reporter}, subtasks()) none in fieldValue(%{...reporter}, linkedIssues()) , checks whether there isn't a single sub-task reporter among linked issues reporters.</p> <p>[1, 2] none in [3, 4, 5]</p> <p>["blue", "red"] none in ["black", "white", "green"]</p>

Case-ignoring Operators

The following comparison operators are applicable to STRING and STRING [] [data types](#).

All operators ignore the case of the characters.

Operator	Meaning	Examples (all examples return true)
=~	equal to	<p>"HELLO" =~ "Hello"</p> <p>"up" =~ "UP"</p> <p>["blue", "red", "green"] =~ ["Blue", "RED", "Green"]</p>
!~=	not equal to	<p>"HELLO" !=~ "Hello"</p> <p>"up" !=~ "down"</p> <p>("up" !=~ "UP") = false</p> <p>["blue", "red"] !=~ ["Blue", "green"]</p> <p>["blue", "red"] !=~ ["Red", "BLUE"]</p> <p>(["blue", "red", "green"] !=~ ["Blue", "RED", "Green"]) = false</p>

<code>~~</code>	contains	"Hello World!" <code>~~</code> "world" , checks whether a string contains a substring. "A small step for a man" <code>~~</code> "STEP" , checks whether a string contains a substring. ["one", "two", "three"] <code>~~</code> ["TWO", "One"] , checks whether a string list contains all the elements of another string list.
<code>!~~</code>	doesn't contain	"Hello World!" <code>!~~</code> "bye" , checks whether a string doesn't contain a substring. "A small step for a man" <code>!~~</code> "big" , checks whether a string doesn't contain a substring. ["one", "two", "three"] <code>!~~</code> ["Four"] , checks whether a string list doesn't contain one element of another string list. (["one", "two", "three"] <code>!~~</code> ["TWO"]) = false
<code>in~</code>	is contained in	"world" <code>in~</code> "Hello World!" , checks whether a substring is contained in another string. "STEP" <code>in~</code> "A small step for a man" , checks whether a substring is contained in another string. ["TWO", "One"] <code>in~</code> ["one", "two", "three"] , checks whether all the elements of a string list are contained in another string list.
<code>not in~</code>	isn't contained in	"bye" <code>not in~</code> "Hello World!" , checks whether a substring is not contained in another string. "big" <code>not in~</code> "A small step for a man" , checks whether a substring is not contained in another string. ["Four"] <code>not in~</code> ["one", "two", "three"] , checks whether any of the elements of a string list are not contained in another string list. (["TWO"] <code>not in~</code> ["one", "two", "three"]) = false
<code>any in~</code>	some element is in	["blue", "violet"] <code>any in~</code> ["Blue", "Red", "Green"] ["Five", "One"] <code>any in~</code> ["FOUR", "FIVE", "SIX"]
<code>none in~</code>	no single element is in	["Orange"] <code>any in~</code> ["red", "blue", "green"] (["orange"] <code>any in~</code> ["Red", "Orange"]) = false

Operators and applicable data types

Below you find a comprehensive matrix of all operators and applicable data types.

Comparison Operator	BOOLEAN	NUMBER	STRING	NUMBER []	STRING []	ISSUE
<code>=</code>	X	X	X	X	X	X
<code>!=</code>	X	X	X	X	X	X
<code><</code>	-	X	X	-	-	-
<code>></code>	-	X	X	-	-	-
<code><=</code>	-	X	X	-	-	-
<code>>=</code>	-	X	X	-	-	-
<code>~</code>	-	-	X	X	X	X
<code>!~</code>	-	-	X	X	X	X
<code>in</code>	-	-	X	X	X	X
<code>not in</code>	-	-	X	X	X	X
<code>any in</code>	-	-	-	X	X	X
<code>none in</code>	-	-	-	X	X	X
<code>=~</code>	-	-	X	-	X	-
<code>!=~</code>	-	-	X	-	X	-
<code>~~</code>	-	-	X	-	X	-
<code>!~~</code>	-	-	X	-	X	-
<code>in~</code>	-	-	X	-	X	-
<code>not in~</code>	-	-	X	-	X	-
<code>any in~</code>	-	-	-	-	X	-
<code>none in~</code>	-	-	-	-	X	-



Remember	Example
Operators <code>~</code> , <code>!~</code> , <code>in</code> and <code>not in</code> can be used for checking a single element (number or string) against a number list or a string list	<ul style="list-style-type: none">• <code>1 in [1, 2, 3]</code>• <code>["blue", "red"] ~ "blue" .</code>
Operators <code>~</code> , <code>!~</code> , <code>in</code> and <code>not in</code> when used with a string are useful to look for substrings in another string.	<ul style="list-style-type: none">• <code>"I love coding" ~ "love"</code>• <code>"I don't like Mondays" !~ "Fridays"</code>• <code>"love" in "I love coding"</code>• <code>"Fridays" not in "I don't like Mondays".</code>
Operators <code>~</code> , <code>!~</code> , <code>in</code> and <code>not in</code> respect cardinality, i.e., container list must have at least the same number of elements as contained list.	<ul style="list-style-type: none">• <code>[1, 1] in [1, 1, 1]</code>• <code>[1, 1] not in [1, 2, 3] .</code>
Operators <code>=</code> and <code>!=</code> , when used for comparing lists, require to have the same elements , with the same cardinality and the same order .	<ul style="list-style-type: none">• <code>[1, 2, 3] = [1, 2, 3]</code>• <code>[4, 5, 6] != [4, 6, 5] .</code>
Operators <code><</code> , <code>></code> , <code><=</code> and <code>>=</code> work according to lexicographical order when comparing strings.	



A reference of all data types [can be found here](#).