Block or hide a transition for an issue depending on its issue links

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Features used to implement the examples

- Validation on linked issues
- Boolean validator with math, date-time or text-string terms

Example 1: Block "Start Progress" transition if the issue "is blocked by" an issue in status other "Resolved", "Closed" or "Done"

Validation on linked issues checks up both, previously created issue links, and new issue links created in transition screen. When we want to check issue links created exclusively in transition screen, we should use Boolean validator with math, date-time or text-string terms with a boolean expression with function transitionLinkedIssues(). Example: Validate only issue links created in transition screen

We are going to use Validation on linked issues to block "Start Progress" transition whenever current issue has an "is blocked by" issue link with an issue in a status different from "Resolved", "Closed" or "Done":

Issue link types:	✓ is blocked by
	blocks
	is cloned by
	Clones
	is duplicated by
	duplicates
	has Epic
	is Epic of
	is caused by
	causes
	e relates to
	e relates to
	Selected issue link types will be allowed. Nevertheless, if you didn't select any issue link type, and checked "Allow unselected issue link types", there won't be applied any filter by issue link type, i.e., every issue link type will be allowed.

Issue types for linked issues:	Epic
	Story
	Bug
	New Feature
	🗆 🗹 Task
	Improvement
	Sub-task
	Linked issues of selected issue types will be allowed. Nevertheless, if you didn't select any issue type, and checked "Allow unselected issue types", there won't be applied any filter by issue type, i.e., every issue type will be allowed.
Statuses for linked issues:	🗆 🔺 Open
	CA In Progress
	Reopened
	Resolved
	Closed
	📄 🔺 To Do
	C A Done
	Linked issues in selected statuses will be allowed. Nevertheless, if you didn't select any issue status, and checked "Allow unselected statuses", there won't be applied any filter by status, i.e., every issue status will be allowed.

Resolutions for linked issues:	UNRESOLVED, i.e. no resolution value
	Fixed
	Won't Fix
	Duplicate
	Incomplete
	Cannot Reproduce
	Linked issues with selected resolutions will be allowed. Nevertheless, if you didn't select any issue resolution, and checked "Allow unselected resolutions", there won't be
	applied any filter by resolution, i.e., every issue resolution will be allowed.
Linked issues must belong to:	any project
Linked issues must belong to.	current project
	 any but current project
	 projects introduced:
	o projects introduced.
	Introduce a comma separated list of project keys. If you write field codes (format %(nnnnn)) they will be replaced with its values.
	ignore links to issues in other projects

Filtering by field values:	1
Optional boolean expression that should	
be satisfied by linked issues. (Syntax	
Specification)	Leave field empty for no filtering. [Line 1 / Col 1
	Logical connectives: or, and and not. Alternatively you can also use , & and 1. Check Syntax
	Comparison operators: =, !=, >, >=, < and <=. Operators ~, !~, in, not in, any in and none in can be used with strings, multi-valued fields and lists.
	and insts. Logical literals: true and false. Literal null is used with = and != to check whether a field is initialized, e.g. {00012} != null checks whether
	Due Date is initialized.
	String Field Code Injector:
	Summary - [Text] - %{00000} -
	Field Code for Current Issue Field Code for Linked Issues
	Numeric/Date Field Code Injector:
	Original estimate (minutes) - [Number] - {00068}
	Field Code for Current Issue Field Code for Linked Issues
	Example 1: {00012} <= ^{00012} will require that linked issues have Due Date equal or later than current issue's Due Date. Example 2: \${00074} - ^\${00074} AND ^\${00017} in ["Blocker", "Critical"] will require that linked issues have Fixed versions contained in current issue's Fixed versions and Priority is Blocker or Critical.
Minimum required number of issue links:	0 Minimum number of linked issues required to satisfy selected filtering conditions (issue link type, issue type, status, resolution, project and field values).
Maximum allowed number of	1000
issue links:	Maximum number of linked issues allowed to satisfy selected filtering conditions (issue link type, issue type, status, resolution, project and field values).
Allow we also faid in our Bula	0
Allow unselected issue link types:	W Unselected issue link types will be ignored, i.e., they will be allowed regardless of linked issues' issue type, status, resolution, field values and number. Nevertheless, if none of the issue link types are selected, checking this option will make the condition behave as if you had selected every issue link type.
Allow unselected issue types:	Inked issues in unselected issue types will be ignored, i.e., they will be allowed regardless of their status, resolution, field values and number. Nevertheless, if none of the issue types are selected, checking this option will make the condition behave as if you had selected every issue type.
Allow unselected statuses:	Linked issues in unselected statuses will be ignored, i.e., they will be allowed regardless of their resolution, field values and number. Nevertheless, if none of the statuses are selected, checking this option will make the condition behave as if you had selected every status.
Allow unselected resolutions:	Subscription of the resolutions will be ignored, i.e., they will be allowed regardless of their field values and number. Nevertheless, if none of the resolutions are selected, checking this option will make the condition behave as if you had selected every resolution.
Allow unsatisfied condition	Linked issues not satisfying filter by field values will be ignored, i.e., they will be allowed regardless of their number.
on field values:	
on field values: Skip validation when: Inhibit the validator under selected circumstances.	 Transition is triggered by a bulk operation. Transition is triggered by a JIRA Workflow Toolbox post-function. Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition.
Skip validation when: Inhibit the validator under selected	Transition is triggered by a JIRA Workflow Toolbox post-function.
Skip validation when: Inhibit the validator under selected circumstances.	 Transition is triggered by a JIRA Workflow Toolbox post-function. Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition.
Skip validation when: Inhibit the validator under selected circumstances. Message to show when	 Transition is triggered by a JIRA Workflow Toolbox post-function. Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition. Progress can't start, since there is at least one blocker issue.

Set translations for installed languages

Once configured, "Start Progress" transition looks like this:

ТО ВО	Start Progress	IN PROGRESS
Screen: None - it will happen instantly		
Triggers O Conditions 1 Valida	ators 1 Post Functions 6	
The transition requires the following cr	iteria to be valid	Add validator
Validation on linked issue: Image: Second status At least 0 and no more than 1000 issue links with the following characteristics: - Issue link types: is blocked by. - Linked issue's issue type: any - Linked issue's status: Done, Closed or Resolved. - Linked issue's resolution: any - Linked issue belongs to any project. About the rest of issue links: - Unselected issue link types are allowed. - Unselected statuses are not allowed. Message to show when validation fails: "Progress can't start, since there is at least one blocker issue.".		

Alternative expression

The **Boolean validator with math**, date-time or text-string terms equivalent to this validation is: count (filterByPredicate(linkedIssues("is blocked by"), ^%{00016} not in ["Resolved", "Closed", "Done"])) = 0

Note that:

• %{00016} is the field code for "Issue status".

Example 2: Make sure an issue can only be closed if all duplicates with certain field values have been already closed

We want to guarantee that all **duplicate issues** have been **closed** before **the original issue can be closed**. At the same time we want guarantee that, for consistency, all duplicates have the **same value** in fields "**Components**", "**Affected versions**" and "**Fixed versions**", and that they belong to the **same project** as main issue:

Issue link types:	is blocked by
	blocks
	is cloned by
	Clones Clones
	✓ is duplicated by
	duplicates
	has Epic
	is Epic of
	is caused by
	causes
	e relates to
	e relates to
	Selected issue link types will be allowed. Nevertheless, if you didn't select any issue link type, and checked "Allow unselected issue link types", there won't be applied any filter by issue link type, i.e., every issue link type will be allowed.

Issue types for linked issues:	Epic
	Story
	🔲 🖸 Bug
	New Feature
	🗆 🗹 Task
	Improvement
	Sub-task
	Linked issues of selected issue types will be allowed. Nevertheless, if you didn't select any issue type, and checked "Allow unselected issue types", there won't be applied any filter by issue type, i.e., every issue type will be allowed.
Statuses for linked issues:	🗆 材 Open
	In Progress
	Reopened
	Resolved
	Closed
	🔲 🔺 To Do
	🔲 Å Done
	Linked issues in selected statuses will be allowed. Nevertheless, if you didn't select any issue status, and checked "Allow unselected statuses", there won't be applied any filter by status, i.e., every issue status will be allowed.

Resolutions for linked issues:	UNRESOLVED, i.e. no resolution value
	Fixed
	Won't Fix
	Duplicate
	Incomplete
	Cannot Reproduce
	Linked issues with selected resolutions will be allowed. Nevertheless, if you didn't select any issue resolution, and checked "Allow unselected resolutions", there won't be applied any filter by resolution, i.e., every issue resolution will be allowed.
Linked issues must belong to:	 any project current project any but current project projects introduced:
	Introduce a comma separated list of project keys. If you write field codes (format % <i>{nnnnn}</i>) they will be replaced with its values. ignore links to issues in other projects

Filtering by field values: Optional boolean expression that should be satisfied by linked issues. (Syntax	1 ^%{00094} = %{00094} AND ^%{00074} = %{00074} AND ^%{00077} = %{00077}
Specification)	Leave field empty for no filtering. [Line 1 / Col 1
	Logical connectives: or, and and not. Alternatively you can also use , & and 1. <u>Comparison operators</u> : =, !=, >, >=, < and <=. Operators -, !-, in, not in, any in and none in can be used with strings, multi-valued fields and lists. <u>Logical literals</u> : true and false. Literal null is used with = and != to check whether a field is initialized, e.g. {00012} != null checks whether Due Date is initialized. <u>String Field Code Injector:</u> Summary - [Text] - %{00000} ~
	Field Code for Current Issue Field Code for Linked Issues Numeric/Date Field Code Injector: Original estimate (minutes) - [Number] - {00068}
	Field Code for Current Issue Field Code for Linked Issues
	Example 1: {00012} <= ^{00012} will require that linked issues have Due Date equal or later than current issue's Due Date. Example 2: {{00074} ~ ^{{00074} AND ^{{00077} in ["Blocker", "Critical"] will require that linked issues have Fixed versions contained in current issue's Fixed versions and Priority is Blocker or Critical.
Minimum required number of issue links:	0 Minimum number of linked issues required to satisfy selected filtering conditions (issue link type, issue type, status, resolution, project and field values).

Allow unselected issue link types: Allow unselected issue types:	 Unselected issue link types will be ignored, i.e., they will be allowed regardless of linked issues' issue type, status, resolution, field values and number. Nevertheless, if none of the issue link types are selected, checking this option will make the condition behave as if you had selected every issue link type.
	Linked issues in unselected issue types will be ignored, i.e., they will be allowed regardless of their status, resolution, field values and number. Nevertheless, if none of the issue types are selected, checking this option will make the condition behave as if you had selected every issue type.
Allow unselected statuses:	Linked issues in unselected statuses will be ignored, i.e., they will be allowed regardless of their resolution, field values and number. Nevertheless, if none of the statuses are selected, checking this option will make the condition behave as if you had selected every status.
Allow unselected resolutions:	Linked issues in unselected resolutions will be ignored, i.e., they will be allowed regardless of their field values and number. Nevertheless, if none of the resolutions are selected, checking this option will make the condition behave as if you had selected every resolution.
Allow unsatisfied condition on field values:	Linked issues not satisfying filter by field values will be ignored, i.e., they will be allowed regardless of their number.
Skip validation when: Inhibit the validator under selected circumstances.	 Transition is triggered by a bulk operation. Transition is triggered by a JIRA Workflow Toolbox post-function. Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition.
Message to show when validation fails:	Duplicating issues have to be closed before closing the main issue. Project, Components, Affected versions and Fixed versions should be consistent. Field code injector: Summary - [Text] - %{00000} - Field codes with format %{ <i>nnnn</i> } can be inserted in the failure message and its translations, and they will be replaced with actual field values at runtime. Set translations for installed languages

The boolean expression used for filtering field values is: ^%{00094} = %{00094} AND ^%{00074} = %{00074} AND ^%{00077} = % {00077}

Note that:

- %{00094} is field code for "Components"
 %{00074} is field code for "Affected versions"
 %{00077} is field code for "Fixed versions"

Once configured, "Close Issue" transition looks like this:

RESOLVED	Close Issue	
Description: Closing an issue indicates there is no m Screen: Workflow Screen	ore work to be done on it, and it has	s been verified as complete.
Triggers O Conditions 1 Validators 1	Post Functions 5	
The transition requires the following criteria to I	be valid	Add validator
Validation on linked issue: At least 0 and no more than 1000 issue links with the - Issue link types: is duplicated by. - Linked issue's issue type: any - Linked issue's status: Closed. - Linked issue's resolution: any - Linked issue belongs to same project as current - Linked issue belongs to same project as current - Linked issue belongs to same project as current - Linked issue should satisfy: ^% {Components} versions} AND ^% {Affected versions} = About the rest of issue links: - Unselected issue link types are allowed. - Linked issues not satisfying filter by field values at the same statisfying filter by field values at the same statisfy is the same statis the same statisfy is the same statisfy is the same statisfy is t	t issue. = %{Components} AND ^%{Fix %{Affected versions} are not allowed. ng issues have to be closed befor	re closing the main issue.

Alternative expression

The Boolean validator with math, date-time or text-string terms equivalent to this validation is:

```
count(filterByPredicate(linkedIssues("is duplicated by"), ^%{00016} != "Closed" OR ^%{00018} != %{00018} OR ^%
{00094} != %{00074} OR ^%{00074} != %{00074} AND ^%{00077} != %{00077})) = 0
```

Note that:

- %{00016} is field code for "Issue status"
- %{00018} is field code for "Project key"

Example 3: Make sure no issue type "Bug" is "blocked" or "cloned" by the transitioning issue

We want to use Validation on linked issues to forbid the existence of "blocks" and "clones" issue links to "Bug" issue types:

Issue link types:	is blocked by
	✓ blocks
	is cloned by
	✓ clones
	is duplicated by
	duplicates
	a has Epic
	is Epic of
	is caused by
	causes
	e relates to
	e relates to
	Selected issue link types will be allowed. Nevertheless, if you didn't select any issue link type, and checked "Allow unselected issue link types", there won't be applied any filter by issue link type, i.e., every issue link type will be allowed.

Issue types for linked issues:	Epic		
	Story		
	🖉 🖸 Bug		
	New Feature		
	🔲 🗹 Task		
	Improvement		
	Sub-task		
	Linked issues of selected issue types will be allowed. Nevertheless, if you didn't select any issue type, and checked "Allow unselected issue types", there won't be applied any filter by issue type, i.e., every issue type will be allowed.		
Statuses for linked issues:	🗆 🔺 Open		
	In Progress		
	C 👎 Reopened		
	Resolved		
	Closed		
	🔲 🔺 To Do		
	Done 🔊		
	Linked issues in selected statuses will be allowed. Nevertheless, if you didn't select any issue status, and checked "Allow unselected statuses", there won't be applied any filter by status, i.e., every issue status will be allowed.		

Resolutions for linked issues:	UNRESOLVED, i.e. no resolution value
	Fixed
	Won't Fix
	Duplicate
	Incomplete
	Cannot Reproduce
	Linked issues with selected resolutions will be allowed. Nevertheless, if you didn't select any issue resolution, and checked "Allow unselected resolutions", there won't be applied any filter by resolution, i.e., every issue resolution will be allowed.
Linked issues must belong to:	 any project current project any but current project projects introduced:
	Introduce a comma separated list of project keys. If you write field codes (format %{nnnn}) they will be replaced with its values. ignore links to issues in other projects

Filtering by field values: Optional boolean expression that should be satisfied by linked issues. (Syntax Specification)	1 Leave field empty for no filtering. [Line 1 / Logical connectives: or, and and not. Alternatively you can also use , & and 1. Check Synthetic and in the second se	
	String Field Code Injector: Summary - [Text] - %{00000} Field Code for Current Issue Field Code for Current Issue Field Code for Linked Issues Numeric/Date Field Code Injector: Original estimate (minutes) - [Number] - {00068}	
	Field Code for Current Issue Field Code for Linked Issues Example 1: {00012} <= ^{00012} will require that linked issues have Due Date equal or later than current issue's Due Date. Example 2: \${00074} ~ ^{{00074}} AND ^{{00077}} in ["Blocker", "Critical"] will require that linked issues have Fixed versions contained in current is Fixed versions and Priority is Blocker or Critical.	sue's
Minimum required number of issue links:	O Minimum number of linked issues required to satisfy selected filtering conditions (issue link type, issue type, status, resolution, project and field values).	
Maximum allowed number of issue links:	0 Maximum number of linked issues allowed to satisfy selected filtering conditions (issue link type, issue type, status, resolution, project and field values).	

Allow unselected issue link types:	Unselected issue link types will be ignored, i.e., they will be allowed regardless of linked issues' issue type, status, resolution, field values and number. Nevertheless, if none of the issue link types are selected, checking this option will make the condition behave as if you had selected every issue link type.
Allow unselected issue types:	C Linked issues in unselected issue types will be ignored, i.e., they will be allowed regardless of their status, resolution, field values and number. Nevertheless, if none of the issue types are selected, checking this option will make the condition behave as if you had selected every issue type.
Allow unselected statuses:	Linked issues in unselected statuses will be ignored, i.e., they will be allowed regardless of their resolution, field values and number. Nevertheless, if none of the statuses are selected, checking this option will make the condition behave as if you had selected every status.
Allow unselected resolutions:	Linked issues in unselected resolutions will be ignored, i.e., they will be allowed regardless of their field values and number. Nevertheless, if none of the resolutions are selected, checking this option will make the condition behave as if you had selected every resolution.
Allow unsatisfied condition on field values:	Linked issues not satisfying filter by field values will be ignored, i.e., they will be allowed regardless of their number.
Skip validation when: Inhibit the validator under selected circumstances.	 Transition is triggered by a bulk operation. Transition is triggered by a JIRA Workflow Toolbox post-function. Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition.
Message to show when validation fails:	It is not allowed to block or clone a Bug. Field code injector: Summary - [Text] - %{00000} - Field codes with format %{nnnn} can be inserted in the failure message and its translations, and they will be replaced with actual field values at runtime. Set translations for installed languages

Once configured, the transition looks like this:

RESOLVED Close Issue	CLOSED					
Description : Closing an issue indicates there is no more work to be done on it, and it has been verified as complete.						
Scieen. Worknow Scieen						
Triggers O Conditions 1 Validators 2 Post Functions	5 5					
The transition requires the following criteria to be valid	Add validator					
Validation on linked issue:						
At least 0 and no more than 0 issue links with the following characte	ristics:					
- Issue link types: clones or blocks.						
- Linked issue's issue type: Bug.						
- Linked issue's <u>status</u> : none						
- Linked issue's <u>resolution</u> : none						
- Linked issue belongs to any project.						
About the rest of issue links:						
- Unselected issue link types are allowed.						
- Unselected issue types are allowed.						
- Unselected statuses are not allowed.						
- Unselected resolutions are not allowed.						
Message to show when validation fails: "It is not allowed to block or clone a Bug.".						

Alternative expression

The Boolean validator with math, date-time or text-string terms equivalent to this validation is:

```
count(filterByIssueType(linkedIssues("blocks, clones"), "Bug")) = 0
```

or

```
count(filterByPredicate(linkedIssues("blocks, clones"), %{00014} = "Bug")) = 0
```

Note that:

• %{00014} is field code for "Issue type"

Other examples of that functions

Validation on linked issues

Page: Block an epic's transition depending on linked issues status and due date

Page: Block creation of issue type X if it has not been linked with link type Y to issue type Z on the "Create Issue" screen

Page: Block or hide a transition for an issue depending on its issue links Page: Enforce linked issues in a specific project to be "Closed" before closing issue

Page: Prevent issue from being "Closed" if blocking issues aren't yet closed

Related Usage Examples

- Block an epic's transition depending on linked issues status and due date
 - ° example
 - validator
 - ° issue-links
 - transition
- Prevent issue from moving forward if it's dependent on nonaccepted tickets
 - o example
 - validator
 - ° issue-links

Page: Prevent issue from being closed if it has links of type "is blocked by" to open issues

Page: Prevent issue from moving forward if it's dependent on nonaccepted tickets

Page: Prevent transitioning when there is a blocking issue Page: Validate only issue links created in transition screen

Boolean validator with math, date-time or text-string terms

Page: Block a transition until all sub-tasks have certains fields populated Page: Block an epic's transition depending on linked issues status and due date

Page: Block or hide a transition for an issue depending on its issue links Page: Block or unblock a transition after an issue rested a specific time in a status

Page: Block transition until all sub-tasks are in a specific status category Page: Close parent issue when all sub-tasks are closed

Page: Enforce a field (Select List) to be set when another field (Radio

Button) has a certain value (works with any kind of field type) Page: Ensure that all issues linked with a certain issue link type have "Due Date" field set

Page: If field A is populated then, field B must also be populated

Page: Limit issue creation per role and issue type

- Page: Limit the number of hours a user can log per day
- Page: Limit valid dates for work logs

Page: Make "Time Spent" field required when there is no time logged in the issue

- Page: Make a custom field mandatory when priority is "Critical" or
- "Blocker" and issue type is "Incident"

Page: Make attachment mandatory depending on the value of certain custom field

Page: Make different fields mandatory depending on the value of a Select List custom field

Page: Make linked issues, sub-tasks and JQL selected issues progress through its workflows

Page: Make parent issue progress through its workflow

Page: Prevent issue creation if another issue with same field value

already exists

Page: Reject duplicated file names in attachments

Page: Require at least one sub-task in status "Resolved" or "Closed" when "Testing required" is selected in Check-Box custom field

Page: Require issue link when resolving as duplicate

Page: Restrict parent issue from closing if it has sub-tasks that were created during a given parent issue status

Page: Restrict sub-task type creation depending on parent issue status

Page: Restrict sub-task type creation depending on parent issue type Page: Set a condition in a global transition which only applies in a

certain status Page: Validate a custom field "Story Points" has been given a value in

Fibonacci sequence Page: Validate compatible values selection among dependent custom

fields

Page: Validate only issue links created in transition screen Page: Validate that multi-user picker custom field A does not contain

any user in multi-user picker custom field B

Page: Validation and condition based on time expressions

Page: Validation based on the value of a date type project property

Page: Validation on issue attachments

Page: Validation on MIME types of issue attachments

Page: Validation on sibling sub-tasks depending on issue type and status Page: Validation on the value of a Cascading Select field

o transition

• Enforce linked issues in a specific project to be "Closed" before closing issue

- example
 - validator
 - issue-links
- ^o transition
- Block or hide a transition for an issue depending on its issue
 - links
 - ° example
 - validator
 - ° issue-links
 - ^o transition
- · Prevent transitioning when there is a blocking issue
 - ^o example
 - ° validator
 - ° issue-links
 - o sub-task ° transition
- Prevent issue from being "Closed" if blocking issues aren't yet closed
 - ^o example
 - validator
 - ° issue-links
 - ^o transition
- Prevent issue from being closed if it has links of type "is blocked by" to open issues
 - example
 - condition
 - validator
 - ° issue-links
 - ^o transition
- Transition linked issues in currently active sprint
 - o example
 - post-function
 - ° issue-links
 - ^o transition
- Make linked issues, sub-tasks and JQL selected issues progress through its workflows
 - example
 - ° condition
 - o validator
 - post-function
 - ° issue-links
 - o sub-task
 - ° transition
- Validate only issue links created in transition screen
 - example
 - validator
 - issue-links
- Require issue link when resolving as duplicate
 - ^o example
 - validator
 - issue-links
- Ensure that all issues linked with a certain issue link type have "Due Date" field set
 - ^o example
 - ° validator
 - issue-links
- Add and remove a single or a set of items from multi valued
 - fields
 - ^o example post-function
 - ° custom-field
 - ° issue-links
 - o sub-task
- Writing a comment to blocked issues when blocking issues are resolved

• Block creation of issue type X if it has not been linked with link type Y to issue type Z on the "Create Issue" screen

^o example post-function

• issue-links

° example ° validator o issue-links