## Validation and condition based on time expressions

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## Features used to implement the examples

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

# Example 1: Due Date should be at least 5 workdays posterior to Creation Date and Time

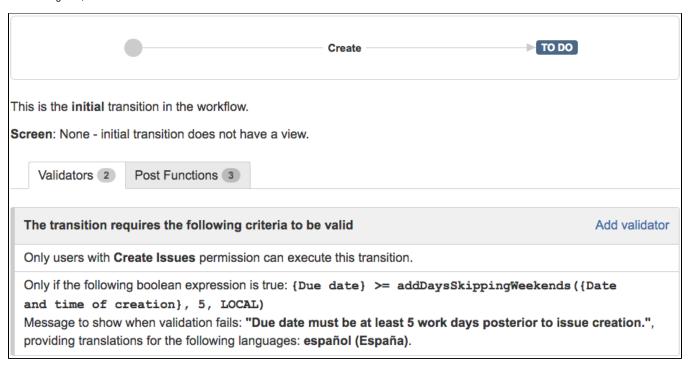
We want to ensure that "Due date" is at least 5 workdays later than issue date and time of creation. To do it we use validator Boolean validator with math, date-time or text-string terms with the following configuration:

Boolean expression to be evaluated:			[ L	ine 1 / Col 55 ]	Syntax Specification and Examples	?
1 {00012} >= addDaysSkippin	1gWeekends ( { 0000	09}, 5, LOCAL)				
Logical connectives: and, or and not.  Comparison operators: =, l=, >, >=, < a fields and lists.  Logical literals: true and false. Litera whether Due Date is initialized.	and <=. Operators ~,	!~, in, not in, any in a				ntax
NUMERICAL AND DATE-TIME TERM Numeric and Date-Time field values:		h format <b>{nnnnn}</b> .				
Original estimate (minutes) - [Number	er] - {00068} 🔻	Insert Numeric Value				
Valid date-time literal formats: yyyy/N There is a set of mathematical funct						
TEXT-STRING TERMS  Text-String field values: insert field co	des with format %{ne	nnnn} or %{nnnnn.i} for r	referencing levels in casc	ading select	fields ( $i = 0$ for base level).	
Summary - [Text] - %{00000} -		Insert String Value				
String literals: written in double quote String concatenation: use operator '+' Escape character: character 't' is used There is a set of string functions available.	to concatenate string with characters "",	g values, e.g., "The summ'\', 'n', 'r', 't', 'f' and 'b' to in		_	)015} + " is \"" + %{00000} + "\'	•"
Skip validation when: Inhibit the validator under selected circumstances	<ul> <li>Transition is triggered by a bulk operation.</li> <li>Transition is triggered by a JIRA Workflow Toolbox post-function.</li> <li>Current issue is being created by cloning. Only makes sense in <i>Create Issue</i> transition.</li> </ul>					
Message to show when validation fails:	Field code injector:  Summary - [Text] - 9  Field codes with forma		e failure message and its translat	iions, and they w	rill be replaced with actual field values at runtime.	
Language Val	idation Failure Mess	sage Translations				
alemán (Alemania)						
coreano (Corea del Sur)						
español (España)	La fecha de entrega debe ser al menos 5 días laborables posterior a la creación de la incidencia.					
francés (Francia)						
inglés (Estados Unidos)						
inglés (UK)						
japonés (Japón)						
portugués (Brasil)						
ruso (Rusia)						

#### Note that:

- {00012} is code for numeric value of "Due date"
- {00009} is code for numeric value of "Date and time of creation"
- LOCAL represents server's timezone. Timezone is needed to determine weekend time periods. Use USER\_LOCAL for using current user's timezone

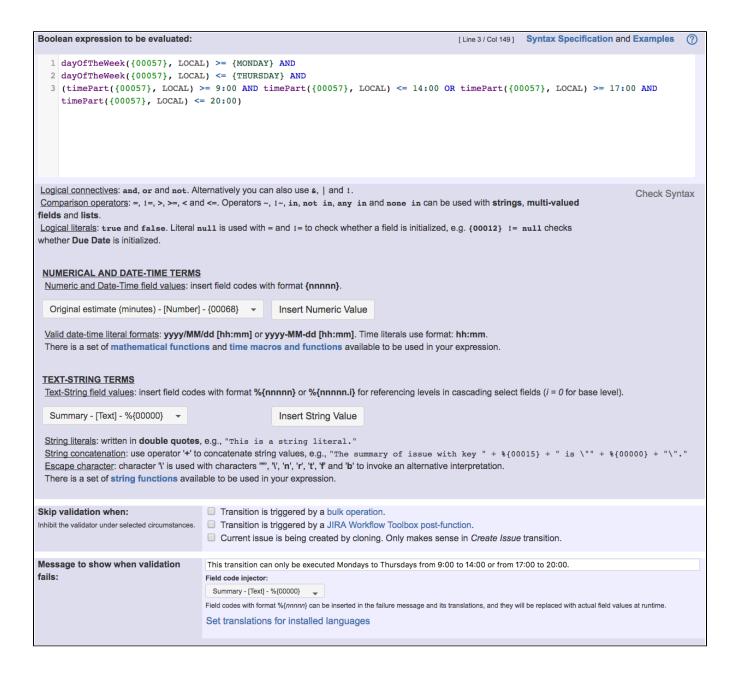
Once configured, the transition "Create Issue" will look like this:



## Example 2: Define a time frame where transition execution is allowed

We want to allow the execution of a transition only Mondays to Thursdays: from 9:00 to 14:00 and from 17:00 to 20:30.

We can use **Boolean condition and validator with math. date-time or text-string terms** condition or validator depending on whether we want to **hid e the transition**, or **show a custom error message** to the user when transition execution was not done in a valid time frame. In this example we are going to use the validator:



Boolean expression used is: dayOfTheWeek( $\{00057\}$ , LOCAL) >=  $\{MONDAY\}$  AND dayOfTheWeek( $\{00057\}$ , LOCAL) <=  $\{THURSDAY\}$  AND (timePart( $\{00057\}$ , LOCAL) >= 9:00 AND timePart( $\{00057\}$ , LOCAL) <= 14:00 OR timePart( $\{00057\}$ , LOCAL) >= 17:00 AND timePart( $\{00057\}$ , LOCAL) <= 20:00)

Note that:

- {00057} is code for numeric value of "Current date and time"
- LOCAL represents server's timezone. Use USER\_LOCAL for using current user's timezone

Once configured, the transition will look like this:

#### The transition requires the following criteria to be valid

Add validator

Only if the following boolean expression is true: dayOfTheWeek({Current date and time}, LOCAL) >= {MONDAY} AND dayOfTheWeek({Current date and time}, LOCAL) <= {THURSDAY} AND (timePart({Current date and time}, LOCAL) >= 9:00 AND timePart({Current date and time}, LOCAL) <= 14:00 OR timePart({Current date and time}, LOCAL) >= 17:00 AND timePart({Current date and time}, LOCAL) <= 20:00)

Message to show when validation fails: "This transition can only be executed Mondays to Thursdays from 9:00 to 14:00 or from 17:00 to 20:00."

#### Calculation Using Custom Schedules

Since version 2.2.39 time calculations on custom defined schedules can be carried out using Schedules Definition Grammar.

For example, you can define your work-schedule as Mondays to Fridays from 8:00 to 15:00, and from 16:00 to 20:00. Then you can calculate time differences, or add time durations to a base instant within that particular custom schedule.

Much more complex schedules than the one described in the example above are possible. You can define common and personal holidays, you can define different work-times for summer and winter seasons, change your work-times from a certain date on, keeping the older work-time definitions for previous instants. Almost any requirement you might think of is possible.

### Other examples of that function

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 is 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

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

Page: Validate a custom field "Story Points" has been given a value in Fibonacci sequence

### Related Usage Examples

- Block or unblock a transition after an issue rested a specific time in a status
  - example
  - o condition
  - o validator
  - transition
- Block transition until all sub-tasks are in a specific status category
  - o example
  - o transition
  - o condition
- Validation and condition based on time expressions
  - o example
  - o condition
  - o validator
  - transition
- Set a condition in a global transition which only applies in a certain status
  - o example
  - o condition
  - transition
- Validation on sibling sub-tasks depending on issue type and status
  - o example
  - validatorsub-task
  - o transition
- Block a transition until all sub-tasks have certains fields populated
  - o example
  - o condition
  - o validator
  - o sub-task
- transition
  Block an epic's transition depending on linked issues status
  - o example

and due date

- o validator
- issue-linkstransition
- Moving story to "In Progress" when one of its sub-tasks is moved to "In Progress" (Transition issues)

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 example
- o post-function
- o transition
- · Transition sub-tasks when parent is transitioned
  - o example
  - o post-function
  - o sub-task
  - o transition
  - o outdated
- Transition only a sub-task among several ones
  - o example
  - o post-function
  - o sub-task
  - o transition
  - outdated
- Moving sub-tasks to "Open" status when parent issue moves to "In Progress"
  - example
  - o post-function
  - o sub-task
  - o transition
  - outdated
- Moving story to "Ready for QA" once all its sub-tasks are in "Ready for QA" status
  - o example
  - o post-function
  - o sub-task
  - o transition
  - outdated
- Change parent's status depending on sub-task's summary (Transition issues)
  - o example
  - o post-function

  - o transition
- · Automatically close resolved sub-tasks when parent issue is closed
  - example
  - post-function
  - o sub-task
  - o transition
  - o outdated
- Change parent's status depending on sub-task's summary
  - o example
  - o post-function
  - o sub-task
  - transition
  - o outdated