Validation on MIME types of issue attachments

Features used to implement the example

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

Example: Validation on MIME types of issue attachments

You may also find it useful knowing that you can also validate the type of files attached.

Let us suppose we want to validate that our issue has the following files attached:

- At least 1 .jar file.
- At least 3 images (any format).
- No more than 5 .txt file
- Exactly 1 XML file.

To implement this validation we will use **Boolean validator with math, date-time or text-string terms** with the following configuration:

Boolean expression to be evaluated: **Syntax Specification**

```
1  matches(%{00072}, "(.*application/java-archive.*){1,}") AND matches(%{00072}, "(.*text/plain.*){0,5}") AND matches(%
   {00072}, "(.*text/xml.*){1}") AND matches(%{00072}, "(.*image/.*){3,}")
```

Logical connectives: **or**, **and** and **not**. Alternatively you can also use **|**, **&** and **!**.
Comparison operators: **=**, **!=**, **>**, **>=**, **<** and **<=**. Operators **~**, **!~**, **in**, **not in**, **any in** and **none in** can be used with **strings**, **multi-valued fields** and **lists**.
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.

NUMERICAL AND DATE-TIME TERMS
Numeric and Date-Time field values: insert field codes with format **{nnnnn}**.

| Original estimate (minutes) - [Number] - {00068} ⇕ | **Insert Numeric Value** |

Valid date-time literal formats: **yyyy/MM/dd [hh:mm]** or **yyyy-MM-dd [hh:mm]**. Time literals use format: **hh:mm**.
There is a set of **mathematical functions** and **time macros and functions** available to be used in your expression.

TEXT-STRING TERMS
Text-String field values: insert field codes with format **%{nnnnn}** or **%{nnnnn.i}** for referencing levels in cascading select fields (*i = 0* for base level).

| Summary - [Text] - %{00000} ⇕ | **Insert String Value** |

String literals: written in **double quotes**, e.g., *"This is a string literal."*
String concatenation: use operator '**+**' to concatenate string values, e.g., *"The summary of issue with key " + %{00015} + " is \"" + %{00000} + "\"."*
Escape character: character '****' is used with characters '**"**', '****', '**n**', '**r**', '**t**', '**f**' and '**b**' to invoke an alternative interpretation.
There is a set of **string functions** available to be used in your expression.

Message to show when validation fails: The issue should contain at least 1 .jar file and 3 images, no more than 5 .txt files and 1 .xml file.

Boolean expression used is: `matches(%{00072}, "(.*application/java-archive.*){1,}") AND matches(%{00072}, "(.*text/plain.*){0,5}") AND matches(%{00072}, "(.*text/xml.*){1}") AND matches(%{00072}, "(.*image/.*){3,}")`

Note that:

- **%{00072}** is field code for "**Attachments with details**"

To design this configuration, We have previously used **Copy a parsed text to a field** post-function in order to see the value that field "**Attachments with details**" takes when we attach different file types. Then it is easy to write a regular expressions for matching desired values.

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 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

Related Usage Examples

- Block or unblock a transition after an issue rested a specific time in a status
    - example
    - condition
    - validator
    - transition
- Validation based on the value of a date type project property
    - example
    - validator
- Validation and condition based on time expressions
    - example
    - condition
    - validator
    - transition
- Validation on sibling sub-tasks depending on issue type and status
    - example
    - validator
    - sub-task
    - transition
- Validation on MIME types of issue attachments
    - example
    - validator
- Validation on the value of a Cascading Select field
    - example
    - validator
    - custom-field
- Validate only issue links created in transition screen
    - example
    - validator
    - issue-links
- If field A is populated then, field B must also be populated
    - example
    - validator
- Limit the number of hours a user can log per day
    - example
    - validator
    - post-function
    - work-log
- Require issue link when resolving as duplicate
    - example
    - validator
    - issue-links
- Make "Time Spent" field required when there is no time logged in the issue
    - example
    - validator
    - work-log
- Ensure that all issues linked with a certain issue link type have "Due Date" field set
    - example
    - validator
    - issue-links
- Make different fields mandatory depending on the value of a Select List custom field
    - example
    - validator
    - custom-field