JWT Release Notes 2.1.21

[2014-09-15] **Released [Jira Workflow Toolbox](#) 2.1.21**

New features

- Parser enriched with **21 new functions**: (More details at [Expression Parser](#).)
    - **transitionLinkedIssues**(*string* **issue_link_types**) : *issue list*
    - **filterByFieldValue**(*issue list* **issues**, *numeric field* **field**, *comparison operator* **operator**, *number* n) : *issue list*
    - **filterByFieldValue**(*issue list* **issues**, *string field* **field**, *comparison operator* **operator**, *string* s) : *issue list*
    - **append**(*string list* **l**, *string list* **m**) : *string list*
    - **append**(*number list* **l**, *number list* **m**) : *number list*
    - **union**(*string list* **l**, *string list* **m**) : *string list*
    - **union**(*number list* **l**, *number list* **m**) : *number list*
    - **except**(*string list* **l**, *string list* **m**) : *string list*
    - **except**(*number list* **l**, *number list* **m**) : *number list*
    - **intersect**(*string list* **l**, *string list* **m**) : *string list*
    - **intersect**(*number list* **l**, *number list* **m**) : *number list*
    - **distinct**(*string list* **l**) : *string list*
    - **distinct**(*number list* **l**) : *number list*
    - **filterByCardinality(***issue list* l, **comparison operator** operator, **number** n**)** : *issue list*
    - **filterByCardinality(***string list* l, **comparison operator** operator, **number** n**)** : *string list*
    - **filterByCardinality(***number list* l, **comparison operator** operator, **number** n**)** : *number list*
    - **toStringList**(*string* **s**, *string* **separators**) : *string list*
    - **toNumberList**(*string* **s**, *string* **separators**) : *string list*
    - **getIssuesFromProjects**(*string* **projects**) : *issue list*
    - **issueKeysToIssueList**(*string* **issues**) : *issue list*
    - **isInRole**(*string* **user_name**, *string* **role_name**) : *boolean*

- Parser enriched with **4 new comparison operators** to be used with **strings**, **multi-valued fields** and **lists**:

OPERATOR	MEANING	EXAMPLES
~	contains	**"Hello world!" ~ "world"**, checks whether a string contains a substring **%{00125} ~ %{00020}**, checks whether "*Component leaders*" contains "*Current user*" **linkedIssues() ~ subtasks()**, checks whether all subtasks are also linked to current issue
!~	doesn't contain	**"world" !~ "Hello world!"** **%{00074} !~ %{00077}**, checks whether "*Fixed versions*" doesn't contain "*Affected versions*" **fieldValue(%{00006}, linkedIssues()) !~ fieldValue(%{00006}, subtasks())**, checks whether linked issues reporters don't include all subtasks reporters
in	is contained in	**"world" in "Hello world!"**, to check whether a substring is contained in a string **%{00020} in %{00125}**, checks whether "*Current user*" is contained in "*Component leaders*" **subtasks() in linkedIssues()**, checks whether all subtasks are also linked to current issue
not in	isn't contained in	**"Hello world!" not in "world"** **%{00077} not in %{00074}**, checks whether "*Affected versions*" are not contained in "*Fixed versions*" **fieldValue(%{00006}, subtasks()) not in fieldValue(%{00006}, linkedIssues())**, checks whether all subtasks reporters are not included in linked issues reporters

These 4 new comparison operators **respect cardinality**, and work on the following **data types**:

- **String**
- **Multi-valued** fields: Multi Select, Checkboxes, Components, Versions, Multi User Picker, Multi Group Picker, Issue Pickers, Attachments and Labels.
- **Issue list**: Returned by functions like *subtasks(), linkedIssues(), transitionLinkedIssues(), filterByFieldValue(), filterByStatus(), filterByIssueType(), filterByResolution(), filterByProject(), append(), union(), except(), intersect()* and *distinct()*.
- **String list**: Returned by functions like *fieldValue(), append(), union(), except(), intersect()* and *distinct()*.
- **Number list**: Returned by functions like *fieldValue(), append(), union(), except(), intersect()* and *distinct()*.

Improvements

- Comparison operators **=** and **!=** now can also be used on **multi-valued fields**, **issue lists**, **number lists** and **string lists**. These operators **respect cardinality and order**.

- Function **filterByResolution**(*issue list* **issues**, *string* **resolutions**) now returns **unresolved issues** when argument **resolutions** receives an empty string ("").

- Improvements on condition and validator "[Users in field are (not) in a project role](#)":
    - Both features now support "**Group Picker**" and "**Multi-Group Picker**" custom fields. When these type of fields are used, all users in the groups are evaluated.
    - **4 new conditions** added to validator.
    - **7 new conditions** added to condition, giving it the same functionality as the validator.

- Minor UI improvements.

- Support for **reading** and **writing** the following custom field types provided for third-party add-ons:
    - **Project Roles or Groups User Picker**, **Project Roles or Groups Multi User Picker**, **Single Selected Users Picker** and **Multi Selected Users Picker** custom fields provided by Custom User Pickers add-on.
    - **Transition Caller Field** and **Parent Status Field** custom field provided by Jira Misc Custom Fields add-on.
    - **User Picker - per Group** custom field provided by User Group Picker add-on.
    - **SIL User Picker** custom field provided by User Group Picker PRO add-on.
    - All custom field types provided by Kepler Custom Fields add-on.

Fixed bugs

- All 3 functions **linkedIssues**() didn't return issues linked in transition screen.
- Function **numberOfSelectedItems(%{00080})** always returned 1, instead of the number of labels in the issue, as expected.
- Number to String auto-casting issues in the parser.
- Function **count**() wasn't working correctly with arguments of type "**String list**" and "**Number list**".
- Validator **Validation on linked issues** was counting twice each issue link introduced in transition.
- When parent issue was reading an **ephemeral field** previously written by one of its subtasks, the field appeared as uninitialized.
- Fixed bad UI design for issue link type selection in post-function **Break issue link**: it wasn't possible to select of issue link types in only one direction (inward or outward).