

Business Rule Engine

Detailed Listing of Actions

for Jare Version 0.77

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Overview

This document contains a detailed listing of the available actions for the Business Rule Engine „Jare“. It lists the available data types, their combinations and possible optional or required parameters.

Actions are defined on the rulegroup level. When a rulegroup fails or passes then none, one or multiple actions can be executed. Actions are executed in the sequence that they have been defined. It is also possible to define actions that are execute when the rulegroup passes and actions when the rulegroup fails at the same time.

A condition must be specified when to execute the action – when the rulegroup fails or passes. Additionally a field - and it's type - must be specified that will be updated by the action.

Sometimes an action will require additional values to be passed to it. This can either be the value of another field or a defined fixed value.

The values selected in the action from "Field to retrieve data", "Parameter 1", "Parameter 2" and "Parameter 3" are passed to the action in this sequence. The "Field to retrieve data" is optional and indicates from which other field a value should be retrieved. It can be specified but must not be.

If for example the action requires two values (arguments) then either "Field to retrieve data" and "Parameter 1" have to be specified or alternatively "Parameter 1" and "Parameter 2" (in this case "Field to retrieve data" is left blank). Then in turn the "Field to update" will be updated with the resulting value.

Prerequisites

The default date format used is: yyyy-MM-dd (four digits for the year, two digits for the month and two digits for the day of the month). If not otherwise specified for String to Date conversions, it is assumed that the value is provided in this format. Date formats need to be according to the Java SimpleDateFormat Class format definitions.

All data types listed here are Java related data types.

Add Leading Spaces

| | |
|-----------------|--|
| Purpose: | Add leading spaces to a value until a given length of the value is reached |
| Java Class: | StringAction |
| Interface Name: | add leading spaces |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | Integer | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Add Leading Zeros

| | |
|-----------------|---|
| Purpose: | Add leading zeros to a value until a given length of the value is reached |
| Java Class: | StringAction |
| Interface Name: | add leading zeros |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | Integer | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Append Value

| | |
|-----------------|--|
| Purpose: | Append a given value to the end of another value |
| Java Class: | StringAction |
| Interface Name: | append |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|---|-------------|
| String | String | String |
| String | Integer | String |
| String | Long | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| Value 3: String | Separator to be used between the values | |

Prepend Value

| | |
|-----------------|---|
| Purpose: | Prepend a given value to the start of another value |
| Java Class: | StringAction |
| Interface Name: | prepend |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|---|-------------|
| String | String | String |
| String | Integer | String |
| String | Long | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| Value 3: String | Separator to be used between the values | |

Trim Value

| | |
|-----------------|--|
| Purpose: | Remove all leading and trailing space characters from a String |
| Java Class: | StringAction |
| Interface Name: | trim |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Concatenate Values

| | |
|-----------------|------------------------|
| Purpose: | Concatenate two values |
| Java Class: | StringAction |
| Interface Name: | append value |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|--|-------------|
| String | Double | String |
| String | Float | String |
| String | Long | String |
| String | Integer | String |
| String | String | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| Value 3: String | Separator to be used between the value | |

Lowercase Value

| | |
|-----------------|---|
| Purpose: | Change a value to it's lowercase representation |
| Java Class: | StringAction |
| Interface Name: | lowercase |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Uppercase Value

| | |
|-----------------|---|
| Purpose: | Change a value to it's uppercase representation |
| Java Class: | StringAction |
| Interface Name: | uppercase |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Replace Value

| | |
|-----------------|--|
| Purpose: | Replace a given value – or part of it - with another value |
| Java Class: | StringAction |
| Interface Name: | replace |

Applicable to:

| Value 1 | Value 2 | Return Type |
|---|---|-------------|
| String | String | String |
| Note: Value 2 has to contain a regular expression. All found occurrences of the regular expression will be replaced with value 3. | | |
| Required Value(s) | Explanation | |
| Value 3: String | the replacement for the original value or parts of it | |

Set Value (String)

| | |
|-----------------|--------------------------------|
| Purpose: | Sets a given value of a string |
| Java Class: | StringAction |
| Interface Name: | set value (string) |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| String | | String |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Set Value (Date)

| | |
|-----------------|------------------------------|
| Purpose: | Sets a given value of a date |
| Java Class: | DateAction |
| Interface Name: | set value (date) |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|---|-------------|
| Date | | Date |
| String | | Date |
| Note: | | |
| Optional Value(s) | Explanation | |
| Value 2: String | In case value 1 is a String, this value optionally defines the date format of the date. | |

Set Value (Number)

| | |
|-----------------|--------------------------------|
| Purpose: | Sets a given value of a number |
| Java Class: | MathAction |
| Interface Name: | absolute |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Float | | Float |
| Long | | Long |
| Integer | | Integer |
| Boolean | | Boolean |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Substring Value

| | |
|-----------------|-------------------------------------|
| Purpose: | Sets the value to a given substring |
| Java Class: | StringAction |
| Interface Name: | set value (String) |

Applicable to:

| Value 1 | Value 2 | Return Type |
|---|--|-------------|
| String | Integer | String |
| Note: Value 2 defines from which position of the value the substring will start | | |
| Optional Value(s) | Explanation | |
| Value 3: Integer | Defines at which position the substring will end | |

Set Today's Date

| | |
|-----------------|-----------------------------------|
| Purpose: | Set the value to the current date |
| Java Class: | DateAction |
| Interface Name: | set today date |

Applicable to:

| Value 1 | Value 2 | Return Type |
|---|--|-------------|
| String | | String |
| Note: Value 1 contains the date format to use | | |
| Optional Value(s) | Explanation | |
| Value 2: Integer | Define an offset of days – positive or negative – that will be added to the current date | |

Set Last Day of Month

| | |
|-----------------|--|
| Purpose: | Set the value to the last day of the month |
| Java Class: | DateAction |
| Interface Name: | set last day of month |

Applicable to:

| Value 1 | Value 2 | Return Type |
|---|--|-------------|
| | | Date |
| Integer | Integer | String |
| Note: You can specify the year and month as integer values for which to calculate the last day. | | |
| Optional Value(s) | Explanation | |
| Value 1: Date | Specify a date for which the last day of the month is calculated | |

Set First Day of Month

| | |
|-----------------|---|
| Purpose: | Set the value to the first day of the month |
| Java Class: | DateAction |
| Interface Name: | set first day of month |

Applicable to:

| Value 1 | Value 2 | Return Type |
|--|---|-------------|
| | | Date |
| Integer | Integer | String |
| Note: You can specify the year and month as integer values for which to calculate the first day. | | |
| Optional Value(s) | Explanation | |
| Value 1: Date | Specify a date for which the first day of the month is calculated | |

Set Mid Day of Month

| | |
|-----------------|--|
| Purpose: | Set the value to the mid day of the month – day 15 |
| Java Class: | DateAction |
| Interface Name: | set mid day of month |

Applicable to:

| Value 1 | Value 2 | Return Type |
|--|---|-------------|
| | | Date |
| Integer | Integer | String |
| Note: You can specify the year and month as integer values for which to calculate the mid day. | | |
| Optional Value(s) | Explanation | |
| Value 1: Date | Specify a date for which the mid day of the month is calculated | |

Absolute Value

| | |
|-----------------|--|
| Purpose: | Calculates the absolute value of a given value |
| Java Class: | MathAction |
| Interface Name: | absolute |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Float | | Float |
| Long | | Long |
| Integer | | Integer |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Acosinus Value

| | |
|-----------------|--|
| Purpose: | Calculates the acosinus of a given value |
| Java Class: | MathAction |
| Interface Name: | acosinus |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Cosinus Value

| | |
|-----------------|---|
| Purpose: | Calculates the cosinus of a given value |
| Java Class: | MathAction |
| Interface Name: | cosinus |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Cosinush Value

| | |
|-----------------|--|
| Purpose: | Calculates the cosinush of a given value |
| Java Class: | MathAction |
| Interface Name: | cosinush |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Asinus Value

| | |
|-----------------|--|
| Purpose: | Calculates the asinus of a given value |
| Java Class: | MathAction |
| Interface Name: | asinus |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Sinus Value

| | |
|-----------------|---------------------------------------|
| Purpose: | Calculates the sinus of a given value |
| Java Class: | MathAction |
| Interface Name: | sinus |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Sinush Value

| | |
|-----------------|--|
| Purpose: | Calculates the sinush of a given value |
| Java Class: | MathAction |
| Interface Name: | sinush |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Atangens Value

| | |
|-----------------|--|
| Purpose: | Calculates the atangens of a given value |
| Java Class: | MathAction |
| Interface Name: | atangens |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Tangens Value

| | |
|-----------------|---|
| Purpose: | Calculates the tangens of a given value |
| Java Class: | MathAction |
| Interface Name: | tangens |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Tangensh Value

| | |
|-----------------|--|
| Purpose: | Calculates the tangensh of a given value |
| Java Class: | MathAction |
| Interface Name: | tangensh |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Square Root Value

| | |
|-----------------|---|
| Purpose: | Calculates the square root of a given value |
| Java Class: | MathAction |
| Interface Name: | square root |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Float | | Double |
| Integer | | Double |
| Long | | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Square Value

| | |
|-----------------|--|
| Purpose: | Calculates the square of a given value |
| Java Class: | MathAction |
| Interface Name: | square |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Double |
| Float | | Double |
| Long | | Long |
| Integer | | Long |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Add Values

| | |
|-----------------|----------------------------------|
| Purpose: | Calculates the sum of two values |
| Java Class: | MathAction |
| Interface Name: | sum |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | Double | Double |
| Float | Float | Float |
| Integer | Integer | Integer |
| Integer | Long | Long |
| Long | Integer | Long |
| Long | Long | Long |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Subtract Values

| | |
|-----------------|----------------------|
| Purpose: | Subtracts two values |
| Java Class: | MathAction |
| Interface Name: | subtract |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Date | Date | Long |
| Double | Double | Double |
| Float | Float | Float |
| Integer | Integer | Integer |
| Integer | Long | Integer |
| Long | Integer | Long |
| Long | Long | Long |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Add Percentage

| | |
|-----------------|--|
| Purpose: | Add a percentage of a value to the value |
| Java Class: | MathAction |
| Interface Name: | add percentage |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | Double | Double |
| Double | Float | Double |
| Double | Integer | Double |
| Integer | Double | Double |
| Integer | Float | Double |
| Integer | Integer | Double |
| Long | Double | Double |
| Long | Float | Double |
| Long | Integer | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Subtract Percentage

| | |
|-----------------|---|
| Purpose: | Subtract a percentage of a value from the value |
| Java Class: | MathAction |
| Interface Name: | subtract percentage |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | Double | Double |
| Double | Float | Double |
| Double | Integer | Double |
| Integer | Double | Double |
| Integer | Float | Double |
| Integer | Integer | Double |
| Long | Double | Double |
| Long | Float | Double |
| Long | Integer | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Devide Values

| | |
|-----------------|---------------------------------------|
| Purpose: | Calculates the devision of two values |
| Java Class: | MathAction |
| Interface Name: | devide |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| BigDecimal | BigDecimal | BigDecimal |
| Double | Double | Double |
| Double | Integer | Double |
| Float | Float | Float |
| Integer | Integer | Double |
| Integer | Long | Double |
| Long | Integer | Double |
| Long | Double | Double |
| Long | Long | Double |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Multiply Values

| | |
|-----------------|-----------------------|
| Purpose: | Multiplies two values |
| Java Class: | MathAction |
| Interface Name: | multiply |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | Double | Double |
| Double | Integer | Double |
| Float | Float | Float |
| Integer | Integer | Long |
| Integer | Long | Long |
| Long | Double | Double |
| Long | Integer | Long |
| Long | Long | Long |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |

Round Value

| | |
|-----------------|----------------------|
| Purpose: | Rounds a given value |
| Java Class: | MathAction |
| Interface Name: | round |

Applicable to:

| Value 1 | Value 2 | Return Type |
|-------------------|-------------|-------------|
| Double | | Long |
| Float | | Integer |
| Note: | | |
| Optional Value(s) | Explanation | |
| | | |