

# APS Groovy Tools Lib

## User Guide

1.0.0

Tommy Svensson

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# MapJsonDocValidator

This takes a schema (made up of a `Map<String, Object>`, see below) and another `Map<String, Object>` representing the JSON. So the catch here is that you need a JSON parser that allows you to get the content as a Map. The Vertx JSON parser does. This uses `Map` since it is generic, does not need to hardcode dependency on a specific parser, and maps are very easy to work with in Groovy.

## Usage

```
private Map<String, Object> schema = [
    "meta/header": "meta",
    header_1: [
        type_1      : "service",
        "meta/type" : "metadata",
        address_1   : "?aps\\.admin\\.\\.\\.*",
        classifier_1: "?public|private"
    ],
    body_1 : [
        action_1: "get-webs"
    ],
    reply_0: [
        webs_1: [
            [
                name_1: "?.*",
                url_1: "?^https?:/\\.\\.*",
                no1_0: "#1-100",
                no2_0: "#<=10",
                no3_0: "#>100",
                no4_0: "#1.2-3.4"
            ]
        ]
    ]
] as Map<String, Object>

private MapJsonDocValidator verifier = new MapJsonDocValidator( validStructure: schema )

...

verifier.validate(myJsonMap)
```

This will throw a runtime exception on validation failure.

## Schema

### Keys

<key>\_0 - The key is optional.

<key>\_1 - The key is required.

### Values

#### "?regexp"

The '?' indicates that the rest of the value is a regular expression. This regular expression will be applied to each value.

#### "<hash><range>"

This indicates that this is a number and defines the number range allowed. The following variants are available:

"#from-to" : This specifies a range of allowed values, from lowest to highest.

"#<=num" : This specifies that the numeric value must be less than or equal to the specified number.

"#>=num" : This specifies that the numeric value must be larger than or equal to the specified number.

"#<num" : This specifies that the numeric value must be less than the specified number.

"#>num" : This specifies that the numeric value must be larger than the specified number.

Note: Both floating point numbers and integers are allowed.

"bla"

This requires values to be exactly "bla".

## Example

```
Map<String, Object> struct = [
  header_1: [
    type_1      : "service",
    address_1    : "aps.admin.web",
    classifier_0 : "?public|private"
  ],
  body_1 : [
    action_1: "get-webs"
  ],
  reply_0: [
    webs_1: [
      [
        name_1: "?.*",
        url_0: "?^https?:/*.*",
        someNumber_0: "#0-100" // Also valid: ( ">0" "<100" ) ( ">=0" "<=100" )
      ]
    ]
  ]
]
```