

Package: RZabbix (via r-universe)

October 5, 2024

Version 0.1.0

Type Package

Title R Module for Working with the 'Zabbix API'

Description R interface to the 'Zabbix API' data
<<https://www.zabbix.com/documentation/3.0/manual/api/reference>>.
Enables easy and direct communication with 'Zabbix API' from
'R'.

License GPL-2

LazyLoad yes

LazyData yes

Depends R (>= 3.2.0)

Imports httr (>= 1.1.0), jsonlite (>= 0.9.19)

BugReports <https://github.com/MarcinKosinski/RZabbix/issues>

RoxygenNote 5.0.1

Repository <https://marcinkosinski.r-universe.dev>

RemoteUrl <https://github.com/marcinkosinski/rzabbix>

RemoteRef HEAD

RemoteSha 3f400f5b2bc9f26f78269546609538e5511c4bd8

Contents

ZabbixAPI	2
Index	5

Description

ZabbixAPI function enables easy and direct communication with Zabbix API from **R**. Each request to the Zabbix API requires passing auth authentication token. Generation of the authentication token is explained [here](#) or can be seen in Examples section.

Usage

```
ZabbixAPI(server = "http://localhost/zabbix", body = list(),
  user.agent = "RZabbix", content.type = "application/json-rpc",
  encode = "json", ..., only.content = TRUE, fromJSON = TRUE,
  content.only.result = TRUE)
```

Arguments

server	A character with base URI for zabbix web interface (omitting /api_jsonrpc.php).
body	A named list specifying method, user auth token and additional params (passed in <code>jsonlite::unbox(data.frame())</code>) to be used during request. It can also be passed as JSON through character with <code>fromJSON('json_string')</code> - see Examples. Available methods are described in Zabbix Documentation . One does not have to pass id and jsonrpc.
user.agent, content.type	Character arguments passed to POST through <code>user_agent</code> and <code>content_type</code> .
encode	The same as encode in POST .
...	Further arguments passed to POST .
only.content, fromJSON, content.only.result	<ul style="list-style-type: none"> • <code>only.content</code> Should return results only for content part of the response. • <code>fromJSON</code> Should apply fromJSON conversion for content when <code>only.content = TRUE</code>. • <code>content.only.result</code> Should return only result part of <code>fromJSON(rawToChar(response\$content))</code> when <code>only.content = TRUE</code>, <code>fromJSON = TRUE</code>.

Details

Communication with the Zabbix API is described at [Zabbix API Manual Reference](#) and relies on specifying methods of call and additional parameters in the **JSON-RPC** format. An example of such specification can be found in the [example of authenticating a user](#) but in **RZabbix** this should be specified in parameter body where parameters are passed in the named list, where additional params should be passed in `jsonlite::unbox(data.frame())`. See examples.

Note

Bug reports and feature requests can be sent to <https://github.com/MarcinKosinski/RZabbix/issues>

Author(s)

Marcin Kosinski, <m.p.kosinski@gmail.com>

Examples

```
## Not run:
# user authentication
#####
ZabbixAPI('http://localhost/zabbix',
          body = list(method = "user.login",
                      params = jsonlite::unbox(
                        data.frame(user = "Admin",
                                   password = "zabbix")))) -> auth

# request to get history of an item of 'item_id' number
#####
ZabbixAPI('http://localhost/zabbix',
          body = list(method = "history.get",
                      params = jsonlite::unbox(
                        data.frame(output = "extend",
                                   itemids = "item_id",
                                   history = 0,
                                   sortfield = "clock",
                                   sortorder = "DESC",
                                   limit = 10)
                      ),
          auth = auth))

# API info
#####
ZabbixAPI('http://localhost/zabbix',
          body = list(method = "apiinfo.version"))

# fromJSON example for get event data for object with 'object_id' number
#####
library(jsonlite)
paste0('{
  "method": "event.get",
  "params": {
    "output": "extend",
    "select_acknowledges": "extend",
    "objectids": "object_id",
    "sortfield": ["clock", "eventid"],
    "sortorder": "DESC"
  },
  "auth": "", auth, ""
}') -> json_rpc

ZabbixAPI('http://localhost/zabbix',
          body = fromJSON(json_rpc)) -> event.info
# colnames - https://www.zabbix.com/documentation/3.0/manual/api/reference/event/object
```

```
event.info %>%
  select(value, clock) %>%
  mutate(clock =
    as.POSIXct(as.numeric(clock),
              tz = "GMT",
              origin = "1970-01-01")) -> clock2viz

list2bind <- list()
for(i in 1:(nrow(clock2viz)-1)) {
  data.frame(
    times =
      seq(from = clock2viz$clock[i+1],
          to = clock2viz$clock[i],
          by = "min") %>%
      head(-1),
    status = clock2viz$value[i+1],
    stringsAsFactors = FALSE) ->
    list2bind[[i]]
}

library(ggplot2)
do.call(bind_rows, list2bind) %>%
  ggplot(aes(x=times, y = status)) +
  geom_point(size = 0.1)

## End(Not run)
```

Index

`content_type`, [2](#)

`fromJSON`, [2](#)

`POST`, [2](#)

`response`, [2](#)

`user_agent`, [2](#)

`ZabbixAPI`, [2](#)