Package 'RZabbix'

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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'.

Repository CRAN

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

NeedsCompilation no

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R topics documented:

ZabbixAPI   *R module for working with the 'Zabbix API'*

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 jsonlite::unbox(data.frame())) to be used during request. It can also
                    be passed as JSON through character with fromJSON('json_string') - 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 user_agent and content_type.

encode   The same as encode in POST.

...   Further arguments passed to POST.

only.content, fromJSON, content.only.result
                    • only.content Should return results only for content part of the response.
                    • fromJSON Should apply fromJSON conversion for content when only.content
                      = TRUE.
                    • content.only.result Should return only result part of fromJSON(rawToChar(response$conten
                      when only.content = TRUE, fromJSON = TRUE.

Details

Communication wih 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)

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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 histoy 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 fo 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
```

```r
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)
```

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