Package 'PhilipsHue'

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Title R Interface to the Philips Hue API

Version 1.0.0

Description Control Philips Hue smart lighting. Use this package to connect to a Hue bridge on your local network (remote authentication not yet supported) and control your smart lights through the Philips Hue API. All API V1 endpoints are supported. See API documentation at <https://developers.meethue.com/>.

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URL https://fascinatingfingers.gitlab.io/philipshue, https://gitlab.com/fascinatingfingers/philipshue

BugReports https://gitlab.com/fascinatingfingers/philipshue/-/issues

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Contents

`auth_helpers` *Authentication helpers*

Description

These functions help manage the environment variables that the PhilipsHue package uses to store authentication secrets.

Usage

```
has_local_auth()

write_auth(path = ".Renviron", append = TRUE)

reset_auth()
```

Arguments

`path`	file path to write secrets to
`append`	passed to `write()`

Details

Local authentication requires setting two environment variables: `PHILIPS_HUE_BRIDGE_IP` and `PHILIPS_HUE_BRIDGE_USERNAME`. `has_local_auth()` uses regular expressions to check if these variables are set (but does not check if the credentials actually work). `reset_auth()` sets these variables to empty strings, and `write_auth()` writes the current values to a file (e.g. an `.Renviron` file for use during development).

Value

has_local_auth() returns a logical value; write_auth() and reset_auth() return TRUE invisibly upon success.

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auth_local *Authentication – local*

Description

This function helps check and set the necessary environment variables to authenticate to a Hue bridge on the local network.

Usage

```
auth_local(
  ip = Sys.getenv("PHILIPS_HUE_BRIDGE_IP"),
  username = Sys.getenv("PHILIPS_HUE_BRIDGE_USERNAME")
)
```

Arguments

ip	the IP address of your Hue bridge
username	the username with access to your Hue bridge

Value

Returns TRUE (invisibly) if options were successfully set

See Also

https://developers.meethue.com/develop/get-started-2/

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capabilities *Hue API:* capabilities *endpoints*

Description

Hue API: capabilities endpoints

Usage

```
get_capabilities()
```

Value

get_capabilities returns a list structure with the capabilities of bridge resources.

See Also

https://developers.meethue.com/develop/hue-api/10-capabilities-api/

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configs *Hue API:* configuration *endpoints*

Description

Hue API: configuration endpoints

Usage

```
get_config()

set_config_attributes(...)

get_state()
```

Arguments

...	named parameters describing configuration

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/7-configuration-api/

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configure_daylight_sensor
Configure Built-In Daylight Sensor

Description

Supported sensors for the Hue bridge include a virtual daylight sensor that calculates sunrise and sunset times based on your location. This function helps configure the built-in daylight sensor (id = 1).

Usage

```
configure_daylight_sensor(
  lat,
  lon,
  sunriseoffset = 30,
  sunsetoffset = -30,
  id = 1
)
```

Arguments

lat	latitude (in decimal degrees). Positive north; negative south.
lon	longitude (in decimal degrees). Positive east; negative west.
sunriseoffset	"daylight" begins sunriseoffset minutes after sunrise
sunsetoffset	"daylight" ends sunsetoffset minutes after sunset
id	ID of the daylight sensor

Value

Returns TRUE (invisibly) upon success.

See Also

https://developers.meethue.com/develop/hue-api/supported-devices/#supportred-sensors

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create_user *Create local user*

Description

The create_user() function allows you to create a user on a local Hue network, but it requires pressing the button on the Hue bridge then executing this command within 30 seconds. delete_user() is not implemented because, apparently, it can only be executed through remote authentication.

Usage

```
create_user(devicetype)
```

Arguments

devicetype	a string naming your app and the device it's running on; suggested format: <application_name>#<devicename> (e.g. Hue#iPhone13).

Value

Returns a list with the newly created username and clientkey

See Also

https://developers.meethue.com/develop/hue-api/7-configuration-api/#create-user

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groups *Hue API:* groups *endpoints*

Description

Hue API: groups endpoints

Usage

```
create_group(...)

get_groups()

get_group(id)

set_group_attributes(id, ...)

set_group_state(id, ...)

delete_group(id)
```

Arguments

...	named parameters describing group attributes or state (e.g. name = "foo"; on = TRUE)
id	ID of a specific group

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/groupds-api/

lights *Hue API:* `lights` *endpoints*

Description

Hue API: `lights` endpoints

Usage

```
search_for_new_lights()

get_new_lights()

rename_light(id, name)

get_lights()

get_light(id)

set_light_state(id, ...)

delete_light(id)
```

Arguments

`id`	ID of a specific light
`name`	name to assign to the light
`...`	named parameters describing light state (e.g. `on = TRUE`)

Value

Requests that create resources return the ID of the newly created item, requests with side effects return `TRUE` upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/lights-api/

resourcelinks *Hue API:* resourcelinks *endpoints*

Description

Hue API: resourcelinks endpoints

Usage

```
create_resourcelink(...)

get_resourcelinks()

get_resourcelink(id)

set_resourcelink_attributes(id, ...)

delete_resourcelink(id)
```

Arguments

...	named parameters describing resourcelink attributes (e.g. name = "foo")
id	ID of a specific resourcelink

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/9-resourcelinks-api/

rules *Hue API:* rules *endpoints*

Description

Hue API: rules endpoints

Usage

```
create_rule(name, conditions, actions)

get_rules()

get_rule(id)

set_rule_attributes(id, name, conditions, actions)

delete_rule(id)
```

Arguments

name	name to assign to the rule
conditions	a list of conditions (e.g. the result of a call to `condition()`)
actions	a list of actions (e.g. the result of a call to `action()`)
id	ID of a specific rule

Value

Requests that create resources return the ID of the newly created item, requests with side effects return `TRUE` upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/6-rules-api/

`rule_helpers` *Rule Helpers*

Description

Defining rules can become quite verbose, and it can be tricky to prepare the proper list structure for the POST or PUT request. These functions simplify things a bit and provide a leaner, more semantic interface.

Usage

```
condition(address, operator, value)

action(address, method, ...)
```

Arguments

address	path to attribute or resource
operator	one of: eq, gt, lt, dx, ddx, stable, not stable, in, not in
value	the value a condition will compare against
method	the HTTP method used to send the body to the given address
...	named parameters to include in action body

Value

Returns a list-like structure suitable for create_rule() or set_rule_attributes().

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scenes *Hue API:* scenes *endpoints*

Description

Hue API: scenes endpoints

Usage

```
create_scene(name, lights, recycle = TRUE, transitiontime = 4)

create_group_scene(name, group_id, recycle = TRUE, transitiontime = 4)

get_scenes()

get_scene(id)

set_scene_attributes(id, ...)

set_scene_lightstate(scene_id, light_id, ...)

delete_scene(id)
```

Arguments

name	name to assign to the scene
lights	vector of light IDs included in the scene
recycle	logical indicating whether the scene can be automatically deleted by the bridge
transitiontime	duration (in milliseconds) of the scene transition
group_id	ID of group that scene belongs to
id, scene_id	ID of a specific scene
...	named parameters describing scene attributes or light state (e.g. name = "foo"; on = TRUE)
light_id	ID of a specific light in the scene

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/4-scenes/

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schedules *Hue API:* schedules *endpoints*

Description

Hue API: schedules endpoints

Usage

```
create_schedule(...)

get_schedules()

get_schedule(id)

set_schedule_attributes(id, ...)

delete_schedule(id)
```

Arguments

...	named parameters describing schedule attributes (e.g. name = "foo")
id	ID of a specific schedule

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/3-schedules-api/

sensors *Hue API:* sensors *endpoints*

Description

Hue API: sensors endpoints

Usage

```
create_sensor(...)

search_for_new_sensors()

get_new_sensors()

rename_sensor(id, name)

get_sensors()

get_sensor(id)

set_sensor_config(id, ...)

set_sensor_state(id, ...)

delete_sensor(id)
```

Arguments

...	named parameters describing sensor state (e.g. on = TRUE)
id	ID of a specific sensor
name	name to assign to the sensor

Value

Requests that create resources return the ID of the newly created item, requests with side effects return TRUE upon success, and GET requests return the response content, parsed into a list.

See Also

https://developers.meethue.com/develop/hue-api/5-sensors-api/

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