Package 'gmailr'

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Title Access the 'Gmail' 'RESTful' API

Version 2.0.0

Description An interface to the 'Gmail' 'RESTful' API. Allows access to
your 'Gmail' messages, threads, drafts and labels.

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URL https://gmailr.r-lib.org, https://github.com/r-lib/gmailr

BugReports https://github.com/r-lib/gmailr/issues

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R topics documented:

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as.character.mime   *Convert a mime object to character representation*

Description

This function converts a mime object into a character vector

Usage

```
## S3 method for class 'mime'
as.character(x, newline = "\r\n", ...)
```

Arguments

x	object to convert
newline	value to use as newline character
...	further arguments ignored

---

gmailr-configuration   *Configuring gmailr*

Description

gmailr can be configured with various environment variables, which are accessed through wrapper functions that provide some additional smarts.

Usage

```
gm_default_email()

gm_default_oauth_client()
```

gm_default_email()

gm_default_email() returns the environment variable GMAILR_EMAIL, if it exists, and [gargle::gargle_oauth_email()](), otherwise.

gm_default_oauth_client()

gm_default_oauth_client() consults a specific set of locations, looking for the filepath for the JSON file that represents an OAuth client. This file can be downloaded from the APIs & Services section of the Google Cloud console <https://console.cloud.google.com>). The search unfolds like so:

- GMAILR_OAUTH_CLIENT environment variable: If defined, it is assumed to be the path to the target JSON file.

- A .json file found in the directory returned by rappdirs::user_data_dir("gmailr"), whose filename uniquely matches the regular expression "client_secret.+[.]json$".
- GMAILR_APP environment variable: This is supported for backwards compatibility, but it is preferable to store the JSON below rappdirs::user_data_dir("gmailr") or to store the path in the GMAILR_OAUTH_CLIENT environment variable.

Here's an inspirational snippet to move the JSON file you downloaded into the right place for auto-discovery by gm_auth_configure():

```
path_old <- "~/Downloads/client_secret_123-abc.apps.googleusercontent.com.json"
d <- fs::dir_create(rappdirs::user_data_dir("gmailr"), recurse = TRUE)
fs::file_move(path_old, d)
```

See Also

Since gmailr uses the gargle package to handle auth, gargle's configuration is also relevant, which is mostly accomplished through options and associated accessor functions.

Other auth functions: gm_auth_configure(), gm_auth(), gm_deauth(), gm_scopes()

Examples

```
gm_default_email()

withr::with_envvar(
  c(GMAILR_EMAIL = "jenny@example.com"),
  gm_default_email()
)

gm_default_oauth_client()

withr::with_envvar(
  c(GMAILR_OAUTH_CLIENT = "path/to/my-client.json"),
  gm_default_oauth_client()
)
```

---

gm_attachment   *Retrieve an attachment to a message*

Description

This is a low level function to retrieve an attachment to a message by id of the attachment and message. Most users are better off using gm_save_attachments() to automatically save all the attachments in a given message.

Usage

```
gm_attachment(id, message_id, user_id = "me")
```

Arguments

`id`	id of the attachment
`message_id`	id of the parent message
`user_id`	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

https://developers.google.com/gmail/api/reference/rest/v1/users.messages.attachments/get

See Also

Other message: `gm_delete_message()`, `gm_import_message()`, `gm_insert_message()`, `gm_messages()`, `gm_message()`, `gm_modify_message()`, `gm_save_attachments()`, `gm_save_attachment()`, `gm_send_message()`, `gm_trash_message()`, `gm_untrash_message()`

Examples

```
## Not run:
my_attachment <- gm_attachment("a32e324b", "12345")
# save attachment to a file
gm_save_attachment(my_attachment, "photo.jpg")

## End(Not run)
```

---

gm_attachments	*Retrieve information about attachments*

Description

Retrieve information about attachments

Usage

```
gm_attachments(x, ...)
```

Arguments

`x`	An object from which to retrieve the attachment information.
`...`	other parameters passed to methods

Value

A data.frame with the `filename`, `type`, `size` and `id` of each attachment in the message.

---

gm_auth   *Authorize gmailr*

Description

Authorize gmailr to view and manage your Gmail projects. This function is a wrapper around
gargle::token_fetch().

By default, you are directed to a web browser, asked to sign in to your Google account, and to grant
gmailr permission to operate on your behalf with Google Gmail. By default, with your permission,
these user credentials are cached in a folder below your home directory, from where they can be
automatically refreshed, as necessary. Storage at the user level means the same token can be used
across multiple projects and tokens are less likely to be synced to the cloud by accident.

Usage

```
gm_auth(
  email = gm_default_email(),
  path = NULL,
  subject = NULL,
  scopes = "full",
  cache = gargle::gargle_oauth_cache(),
  use_oob = gargle::gargle_oob_default(),
  token = NULL
)
```

Arguments

email   Optional. If specified, email can take several different forms:

- "jane@gmail.com", i.e. an actual email address. This allows the user to
  target a specific Google identity. If specified, this is used for token lookup,
  i.e. to determine if a suitable token is already available in the cache. If
  no such token is found, email is used to pre-select the targeted Google
  identity in the OAuth chooser. (Note, however, that the email associated
  with a token when it's cached is always determined from the token itself,
  never from this argument).
- "*@example.com", i.e. a domain-only glob pattern. This can be help-
  ful if you need code that "just works" for both alice@example.com and
  bob@example.com.
- TRUE means that you are approving email auto-discovery. If exactly one
  matching token is found in the cache, it will be used.
- FALSE or NA mean that you want to ignore the token cache and force a new
  OAuth dance in the browser.

Defaults to the option named "gargle_oauth_email", retrieved by gargle_oauth_email()
(unless a wrapper package implements different default behavior).

path   JSON identifying the service account, in one of the forms supported for the txt
argument of jsonlite::fromJSON() (typically, a file path or JSON string).

subject
: An optional subject claim. Specify this if you wish to use the service account represented by `path` to impersonate the `subject`, who is a normal user. Before this can work, an administrator must grant the service account domain-wide authority. Identify the user to impersonate via their email, e.g. `subject = "user@example.com"`. Note that gargle automatically adds the non-sensitive `"https://www.googleapis.com/auth/userinfo.email"` scope, so this scope must be enabled for the service account, along with any other `scopes` being requested.

scopes
: One or more API scopes. Each scope can be specified in full or, for Gmail API-specific scopes, in an abbreviated form that is recognized by `gm_scopes()`:

  - "full" = "https://mail.google.com/" (the default)
  - "gmail.compose" = "https://www.googleapis.com/auth/gmail.compose"
  - "gmail.readonly" = "https://www.googleapis.com/auth/gmail.readonly"
  - "gmail.labels" = "https://www.googleapis.com/auth/gmail.labels"
  - "gmail.send" = "https://www.googleapis.com/auth/gmail.send"
  - "gmail.insert" = "https://www.googleapis.com/auth/gmail.insert"
  - "gmail.modify" = "https://www.googleapis.com/auth/gmail.modify"
  - "gmail.metadata" = "https://www.googleapis.com/auth/gmail.metadata"
  - "gmail.settings_basic" = "https://www.googleapis.com/auth/gmail.settings.basic"
  - "gmail.settings_sharing" = "https://www.googleapis.com/auth/gmail.settings.sharing"

  See https://developers.google.com/gmail/api/auth/scopes for details on the permissions for each scope.

cache
: Specifies the OAuth token cache. Defaults to the option named `"gargle_oauth_cache"`, retrieved via `gargle_oauth_cache()`.

use_oob
: Whether to use out-of-band authentication (or, perhaps, a variant implemented by gargle and known as "pseudo-OOB") when first acquiring the token. Defaults to the value returned by `gargle_oob_default()`. Note that (pseudo-)OOB auth only affects the initial OAuth dance. If we retrieve (and possibly refresh) a cached token, `use_oob` has no effect.

  If the OAuth client is provided implicitly by a wrapper package, its type probably defaults to the value returned by `gargle_oauth_client_type()`. You can take control of the client type by setting `options(gargle_oauth_client_type = "web")` or `options(gargle_oauth_client_type = "installed")`.

token
: A token with class [Token2.0](#) or an object of httr's class `request`, i.e. a token that has been prepared with `httr::config()` and has a [Token2.0](#) in the `auth_token` component.

Details

Most users, most of the time, do not need to call `gm_auth()` explicitly – it is triggered by the first action that requires authorization. Even when called, the default arguments often suffice.

However, when necessary, `gm_auth()` allows the user to explicitly:

- Declare which Google identity to use, via an `email` specification.
- Use a service account token or workload identity federation via `path`.

- Bring your own token.

- Customize scopes.

- Use a non-default cache folder or turn caching off.

- Explicitly request out-of-bound (OOB) auth via use_oob.

If you are interacting with R within a browser (applies to RStudio Server, Posit Workbench, Posit Cloud, and Google Colaboratory), you need OOB auth or the pseudo-OOB variant. If this does not happen automatically, you can request it explicitly with use_oob = TRUE or, more persistently, by setting an option via options(gargle_oob_default = TRUE).

The choice between conventional OOB or pseudo-OOB auth is determined by the type of OAuth client. If the client is of the "installed" type, use_oob = TRUE results in conventional OOB auth. If the client is of the "web" type, use_oob = TRUE results in pseudo-OOB auth. Packages that provide a built-in OAuth client can usually detect which type of client to use. But if you need to set this explicitly, use the "gargle_oauth_client_type" option:

```
options(gargle_oauth_client_type = "web")        # pseudo-OOB
# or, alternatively
options(gargle_oauth_client_type = "installed") # conventional OOB
```

For details on the many ways to find a token, see gargle::token_fetch(). For deeper control over auth, use gm_auth_configure() to bring your own OAuth client or API key. To learn more about gargle options, see gargle::gargle_options.

See Also

Other auth functions: gm_auth_configure(), gm_deauth(), gm_scopes(), gmailr-configuration

Examples

```
# load/refresh existing credentials, if available
# otherwise, go to browser for authentication and authorization
gm_auth()

# indicate the specific identity you want to auth as
gm_auth(email = "jenny@example.com")

# force a new browser dance, i.e. don't even try to use existing user
# credentials
gm_auth(email = NA)

# specify the identity, use a 'read only' scope, so it's impossible to
# send or delete email, and specify a cache folder
gm_auth(
  "target.user@example.com",
  scopes = "gmail.readonly",
  cache = "some/nice/directory/"
)
```

---

gm_auth_configure   *Edit auth configuration*

Description

See the article [Set up an OAuth client](#) for instructions on how to get an OAuth client. Then you can use gm_auth_configure() to register your client for use with gmailr. gm_oauth_client() retrieves the currently configured OAuth client.

Usage

```
gm_auth_configure(
  client = NULL,
  path = gm_default_oauth_client(),
  key = deprecated(),
  secret = deprecated(),
  appname = deprecated(),
  app = deprecated()
)

gm_oauth_client()
```

Arguments

client
: A Google OAuth client, presumably constructed via [gargle::gargle_oauth_client_from_json()](#). Note, however, that it is preferred to specify the client with JSON, using the path argument.

path
: JSON downloaded from [Google Cloud Console](#), containing a client id and secret, in one of the forms supported for the txt argument of [jsonlite::fromJSON()](#) (typically, a file path or JSON string).

key, secret, appname, app
: [**Deprecated**] Use the path (strongly recommended) or client argument instead.

Value

- gm_auth_configure(): An object of R6 class [gargle::AuthState](#), invisibly.

- gm_oauth_client(): the current user-configured OAuth client.

See Also

[gm_default_oauth_client()](#) to learn how you can make your OAuth client easy for gmailr to discover.

Other auth functions: [gm_auth()](#), [gm_deauth()](#), [gm_scopes()](#), [gmailr-configuration](#)

Examples

```
# if your OAuth client can be auto-discovered (see ?gm_default_oauth_client),
# you don't need to provide anything!
gm_auth_configure()

# see and store the current user-configured OAuth client
(original_client <- gm_oauth_client())

# the preferred way to configure your own client is via a JSON file
# downloaded from Google Developers Console
# this example JSON is indicative, but fake
path_to_json <- system.file(
  "extdata", "client_secret_installed.googleusercontent.com.json",
  package = "gargle"
)
gm_auth_configure(path = path_to_json)

# confirm that a (fake) OAuth client is now configured
gm_oauth_client()

# restore original auth config
gm_auth_configure(client = original_client)
```

---

gm_body   *Get the body text of a message or draft*

Description

Get the body text of a message or draft

Usage

```
gm_body(x, ...)
```

Arguments

x	the object from which to retrieve the body
...	other parameters passed to methods

Examples

```
## Not run:
gm_body(my_message)
gm_body(my_draft)

## End(Not run)
```

---

gm_create_draft *Create a draft from a mime message*

Description

Create a draft from a mime message

Usage

```
gm_create_draft(mail, user_id = "me")
```

Arguments

mail	mime mail message created by mime
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.drafts/create>

Examples

```
## Not run:
gm_create_draft(gm_mime(
  From = "you@me.com", To = "any@one.com",
  Subject = "hello", "how are you doing?"
))

## End(Not run)
```

---

gm_create_label *Create a new label*

Description

Function to create a label.

Usage

```
gm_create_label(
  name,
  label_list_visibility = c("show", "hide", "show_unread"),
  message_list_visibility = c("show", "hide"),
  user_id = "me"
)
```

Arguments

`name`	name to give to the new label
`label_list_visibility`	
	The visibility of the label in the label list in the Gmail web interface.
`message_list_visibility`	
	The visibility of messages with this label in the message list in the Gmail web interface.
`user_id`	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/create>

See Also

Other label: `gm_delete_label()`, `gm_labels()`, `gm_label()`, `gm_update_label()`

---

gm_deauth	*Clear current token*

Description

Clears any currently stored token. The next time gmailr needs a token, the token acquisition process starts over, with a fresh call to `gm_auth()` and, therefore, internally, a call to `gargle::token_fetch()`. Unlike some other packages that use gargle, gmailr is not usable in a de-authorized state. Therefore, calling gm_deauth() only clears the token, i.e. it does NOT imply that subsequent requests are made with an API key in lieu of a token.

Usage

```
gm_deauth()
```

See Also

Other auth functions: `gm_auth_configure()`, `gm_auth()`, `gm_scopes()`, `gmailr-configuration`

Examples

```
gm_deauth()
```

---

gm_delete_draft *Permanently delete a single draft*

Description

Function to delete a given draft by id. This cannot be undone!

Usage

```
gm_delete_draft(id, user_id = "me")
```

Arguments

id	message id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.drafts/delete>

See Also

Other draft: [gm_drafts()](), [gm_draft()](), [gm_send_draft()]()

Examples

```
## Not run:
delete_draft("12345")

## End(Not run)
```

---

gm_delete_label *Permanently delete a label*

Description

Function to delete a label by id. This cannot be undone!

Usage

```
gm_delete_label(id, user_id = "me")
```

Arguments

id	label id to retrieve
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/delete>

See Also

Other label: `gm_create_label()`, `gm_labels()`, `gm_label()`, `gm_update_label()`

---

gm_delete_message   *Permanently delete a single message*

Description

Function to delete a given message by id. This cannot be undone!

Usage

```
gm_delete_message(id, user_id = "me")
```

Arguments

id	message id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/delete>

See Also

Other message: `gm_attachment()`, `gm_import_message()`, `gm_insert_message()`, `gm_messages()`, `gm_message()`, `gm_modify_message()`, `gm_save_attachments()`, `gm_save_attachment()`, `gm_send_message()`, `gm_trash_message()`, `gm_untrash_message()`

Examples

```
## Not run:
gm_delete_message("12345")

## End(Not run)
```

---

gm_delete_thread   *Permanently delete a single thread.*

Description

Function to delete a given thread by id. This cannot be undone!

Usage

```
gm_delete_thread(id, user_id = "me")
```

Arguments

id	thread id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.threads/delete>

See Also

Other thread: `gm_modify_thread()`, `gm_threads()`, `gm_thread()`, `gm_trash_thread()`, `gm_untrash_thread()`

Examples

```
## Not run:
gm_delete_thread(12345)

## End(Not run)
```

---

gm_draft   *Get a single draft*

Description

Function to retrieve a given draft by <-

Usage

```
gm_draft(id, user_id = "me", format = c("full", "minimal", "raw"))
```

Arguments

id	draft id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.
format	format of the draft returned

References

https://developers.google.com/gmail/api/reference/rest/v1/users.drafts/get

See Also

Other draft: `gm_delete_draft()`, `gm_drafts()`, `gm_send_draft()`

Examples

```
## Not run:
my_draft <- gm_draft("12345")

## End(Not run)
```

---

gm_drafts   *Get a list of drafts*

Description

Get a list of drafts possibly matching a given query string.

Usage

```
gm_drafts(num_results = NULL, page_token = NULL, user_id = "me")
```

Arguments

num_results	the number of results to return.
page_token	retrieve a specific page of results
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

https://developers.google.com/gmail/api/reference/rest/v1/users.drafts/list

See Also

Other draft: `gm_delete_draft()`, `gm_draft()`, `gm_send_draft()`

Examples

```
## Not run:
my_drafts <- gm_drafts()

first_10_drafts <- gm_drafts(10)

## End(Not run)
```

---

gm_has_token *Is there a token on hand?*

Description

Reports whether gmailr has stored a token, ready for use in downstream requests.

Usage

```
gm_has_token()
```

Value

Logical.

See Also

Other low-level API functions: `gm_token()`

Examples

```
gm_has_token()
```

---

gm_history *Retrieve change history for the inbox*

Description

Retrieves the history results in chronological order

Usage

```
gm_history(
  start_history_id = NULL,
  num_results = NULL,
  label_id = NULL,
  page_token = NULL,
  user_id = "me"
)
```

Arguments

start_history_id

> the point to start the history. The historyId can be obtained from a message, thread or previous list response.

num_results   the number of results to return, max per page is 100

label_id   filter history only for this label

page_token   retrieve a specific page of results

user_id   gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.history/list>

Examples

```
## Not run:
my_history <- gm_history("10")

## End(Not run)
```

---

gm_id   *Get the id of a gmailr object*

Description

Get the id of a gmailr object

Usage

```
gm_id(x, ...)

## S3 method for class 'gmail_messages'
gm_id(x, what = c("message_id", "thread_id"), ...)
```

Arguments

x   the object from which to retrieve the id

...   other parameters passed to methods

what   the type of id to return

Examples

```
## Not run:
gm_id(my_message)
gm_id(my_draft)

## End(Not run)
```

gm_import_message	*Import a message into the gmail mailbox from a mime message*

Description

Import a message into the gmail mailbox from a mime message

Usage

```
gm_import_message(
  mail,
  label_ids,
  type = c("multipart", "media", "resumable"),
  internal_date_source = c("dateHeader", "recievedTime"),
  user_id = "me"
)
```

Arguments

mail	mime mail message created by mime
label_ids	optional label ids to apply to the message
type	the type of upload to perform
internal_date_source	
	whether to date the object based on the date of the message or when it was received by gmail.
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/import>

See Also

Other message: gm_attachment(), gm_delete_message(), gm_insert_message(), gm_messages(), gm_message(), gm_modify_message(), gm_save_attachments(), gm_save_attachment(), gm_send_message(), gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
gm_import_message(gm_mime(
  From = "you@me.com", To = "any@one.com",
  Subject = "hello", "how are you doing?"
))

## End(Not run)
```

gm_insert_message   *Insert a message into the gmail mailbox from a mime message*

Description

Insert a message into the gmail mailbox from a mime message

Usage

```
gm_insert_message(
  mail,
  label_ids,
  type = c("multipart", "media", "resumable"),
  internal_date_source = c("dateHeader", "recievedTime"),
  user_id = "me"
)
```

Arguments

mail	mime mail message created by mime
label_ids	optional label ids to apply to the message
type	the type of upload to perform
internal_date_source	
	whether to date the object based on the date of the message or when it was received by gmail.
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/insert>

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_messages(), gm_message(), gm_modify_message(), gm_save_attachments(), gm_save_attachment(), gm_send_message(), gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
gm_insert_message(gm_mime(
  From = "you@me.com", To = "any@one.com",
  Subject = "hello", "how are you doing?"
))

## End(Not run)
```

---

gm_label *Get a specific label*

Description

Get a specific label by id and user_id.

Usage

```
gm_label(id, user_id = "me")
```

Arguments

id   label id to retrieve

user_id   gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/get>

See Also

Other label: gm_create_label(), gm_delete_label(), gm_labels(), gm_update_label()

---

gm_labels *Get a list of all labels*

Description

Get a list of all labels for a user.

Usage

```
gm_labels(user_id = "me")
```

Arguments

user_id   gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/list>

See Also

Other label: gm_create_label(), gm_delete_label(), gm_label(), gm_update_label()

Examples

```
## Not run:
my_labels <- gm_labels()

## End(Not run)
```

---

gm_last_response   *Response from the last query*

Description

Response from the last query

Usage

```
gm_last_response()
```

---

gm_message   *Get a single message*

Description

Function to retrieve a given message by id

Usage

```
gm_message(
  id,
  user_id = "me",
  format = c("full", "metadata", "minimal", "raw")
)
```

Arguments

id	message id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.
format	format of the message returned

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages>

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_insert_message(),
gm_messages(), gm_modify_message(), gm_save_attachments(), gm_save_attachment(), gm_send_message(),
gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
my_message <- gm_message(12345)

## End(Not run)
```

---

gm_messages   *Get a list of messages*

Description

Get a list of messages possibly matching a given query string.

Usage

```
gm_messages(
  search = NULL,
  num_results = NULL,
  label_ids = NULL,
  include_spam_trash = NULL,
  page_token = NULL,
  user_id = "me"
)
```

Arguments

search	query to use, same format as gmail search box.
num_results	the number of results to return.
label_ids	restrict search to given labels
include_spam_trash	
	boolean whether to include the spam and trash folders in the search
page_token	retrieve a specific page of results
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/list>

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_insert_message(), gm_message(), gm_modify_message(), gm_save_attachments(), gm_save_attachment(), gm_send_message(), gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
# Search for R, return 10 results using label 1 including spam and trash folders
my_messages <- gm_messages("R", 10, "label_1", TRUE)

## End(Not run)
```

---

gm_mime   *Create a mime formatted message object*

Description

These functions create a MIME message. They can be created atomically using `gm_mime()` or iteratively using the various accessors.

Usage

```
gm_mime(..., attr = NULL, body = NULL, parts = list())

## S3 method for class 'mime'
gm_to(x, val, ...)

## S3 method for class 'mime'
gm_from(x, val, ...)

## S3 method for class 'mime'
gm_cc(x, val, ...)

## S3 method for class 'mime'
gm_bcc(x, val, ...)

## S3 method for class 'mime'
gm_subject(x, val, ...)

gm_text_body(
  mime,
  body,
  content_type = "text/plain",
  charset = "utf-8",
  encoding = "quoted-printable",
  format = "flowed",
  ...
)

gm_html_body(
  mime,
  body,
```

```
  content_type = "text/html",
  charset = "utf-8",
  encoding = "base64",
  ...
)

gm_attach_part(mime, part, id = NULL, ...)

gm_attach_file(mime, filename, type = NULL, id = NULL, ...)
```

Arguments

`...`	additional parameters to put in the attr field
`attr`	attributes to pass to the message
`body`	Message body.
`parts`	mime parts to pass to the message
`x`	the object whose fields you are setting
`val`	the value to set, can be a vector, in which case the values will be joined by ", ".
`mime`	message.
`content_type`	The content type to use for the body.
`charset`	The character set to use for the body.
`encoding`	The transfer encoding to use for the body.
`format`	The mime format to use for the body.
`part`	Message part to attach
`id`	The content ID of the attachment
`filename`	name of file to attach
`type`	mime type of the attached file

Examples

```
# using the field functions
msg <- gm_mime() |>
  gm_from("james.f.hester@gmail.com") |>
  gm_to("asdf@asdf.com") |>
  gm_text_body("Test Message")

# alternatively you can set the fields using gm_mime(), however you have
#  to use properly formatted MIME names
msg <- gm_mime(
  From = "james.f.hester@gmail.com",
  To = "asdf@asdf.com"
) |>
  gm_html_body("<b>Test<\b> Message")
```

---

gm_modify_message   *Modify the labels on a message*

Description

Function to modify the labels on a given message by id. Note you need to use the label ID as arguments to this function, not the label name.

Usage

```
gm_modify_message(id, add_labels = NULL, remove_labels = NULL, user_id = "me")
```

Arguments

id	message id to access
add_labels	label IDs to add to the specified message
remove_labels	label IDs to remove from the specified message
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/modify>

See Also

Other message: `gm_attachment()`, `gm_delete_message()`, `gm_import_message()`, `gm_insert_message()`, `gm_messages()`, `gm_message()`, `gm_save_attachments()`, `gm_save_attachment()`, `gm_send_message()`, `gm_trash_message()`, `gm_untrash_message()`

Examples

```
## Not run:
gm_modify_message(12345, add_labels = "label_1")
gm_modify_message(12345, remove_labels = "label_1")
# add and remove at the same time
gm_modify_message(12345, add_labels = "label_2", remove_labels = "label_1")

## End(Not run)
```

gm_modify_thread *Modify the labels on a thread*

Description

Function to modify the labels on a given thread by id.

Usage

```
gm_modify_thread(
  id,
  add_labels = character(0),
  remove_labels = character(0),
  user_id = "me"
)
```

Arguments

id	thread id to access
add_labels	labels to add to the specified thread
remove_labels	labels to remove from the specified thread
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.threads/modify>

See Also

Other thread: `gm_delete_thread()`, `gm_threads()`, `gm_thread()`, `gm_trash_thread()`, `gm_untrash_thread()`

Examples

```
## Not run:
gm_modify_thread(12345, add_labels = "label_1")
gm_modify_thread(12345, remove_labels = "label_1")
# add and remove at the same time
gm_modify_thread(12345, add_labels = "label_2", remove_labels = "label_1")

## End(Not run)
```

---

gm_profile   *Get info on current gmail profile*

Description

Reveals information about the profile associated with the current token.

Usage

```
gm_profile(user_id = "me", verbose = TRUE)
```

Arguments

user_id   gmail user_id to access, special value of 'me' indicates the authenticated user.

verbose   Logical, indicating whether to print informative messages (default TRUE).

Value

A list of class gmail_profile.

See Also

Wraps the getProfile endpoint:

- https://developers.google.com/gmail/api/reference/rest/v1/users/getProfile

Examples

```
## Not run:
gm_profile()

## more info is returned than is printed
prof <- gm_profile()
prof[["historyId"]]

## End(Not run)
```

---

gm_save_attachment   *Save the attachment to a file*

Description

This is a low level function that only works on attachments retrieved with gm_attachment(). To save an attachment directly from a message see gm_save_attachments(), which is a higher level interface more suitable for most uses.

Usage

```
gm_save_attachment(x, filename)
```

Arguments

x	attachment to save
filename	location to save to

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_insert_message(), gm_messages(), gm_message(), gm_modify_message(), gm_save_attachments(), gm_send_message(), gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
my_attachment <- gm_attachment("a32e324b", "12345")
# save attachment to a file
gm_save_attachment(my_attachment, "photo.jpg")

## End(Not run)
```

---

gm_save_attachments   *Save attachments to a message*

Description

Function to retrieve and save all of the attachments to a message by id of the message.

Usage

```
gm_save_attachments(x, attachment_id = NULL, path = ".", user_id = "me")
```

Arguments

x	message with attachment
attachment_id	id of the attachment to save, if none specified saves all attachments
path	where to save the attachments
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

https://developers.google.com/gmail/api/reference/rest/v1/users.messages.attachments/get

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_insert_message(),
gm_messages(), gm_message(), gm_modify_message(), gm_save_attachment(), gm_send_message(),
gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
# save all attachments
gm_save_attachments(my_message)
# save a specific attachment
gm_save_attachments(my_message, "a32e324b")

## End(Not run)
```

---

gm_scopes   *Produce scopes specific to the Gmail API*

Description

When called with no arguments, gm_scopes() returns a named character vector of scopes as-
sociated with the Gmail API. If gm_scopes(scopes =) is given, an abbreviated entry such as
"gmail.readonly" is expanded to a full scope ("https://www.googleapis.com/auth/gmail.readonly"
in this case). Unrecognized scopes are passed through unchanged.

Usage

```
gm_scopes(scopes = NULL)
```

Arguments

scopes   One or more API scopes. Each scope can be specified in full or, for Gmail
                    API-specific scopes, in an abbreviated form that is recognized by gm_scopes():

                        • "full" = "https://mail.google.com/" (the default)
                        • "gmail.compose" = "https://www.googleapis.com/auth/gmail.compose"
                        • "gmail.readonly" = "https://www.googleapis.com/auth/gmail.readonly"
                        • "gmail.labels" = "https://www.googleapis.com/auth/gmail.labels"
                        • "gmail.send" = "https://www.googleapis.com/auth/gmail.send"
                        • "gmail.insert" = "https://www.googleapis.com/auth/gmail.insert"
                        • "gmail.modify" = "https://www.googleapis.com/auth/gmail.modify"
                        • "gmail.metadata" = "https://www.googleapis.com/auth/gmail.metadata"
                        • "gmail.settings_basic" = "https://www.googleapis.com/auth/gmail.settings.basic"
                        • "gmail.settings_sharing" = "https://www.googleapis.com/auth/gmail.settings.sharing"

                    See https://developers.google.com/gmail/api/auth/scopes for details
                    on the permissions for each scope.

Value

A character vector of scopes.

See Also

<https://developers.google.com/gmail/api/auth/scopes> for details on the permissions for each scope.

Other auth functions: `gm_auth_configure()`, `gm_auth()`, `gm_deauth()`, `gmailr-configuration`

Examples

```
gm_scopes("full")
gm_scopes("gmail.readonly")
gm_scopes()
```

---

gm_send_draft   *Send a draft*

Description

Send a draft to the recipients in the To, CC, and Bcc headers.

Usage

```
gm_send_draft(draft, user_id = "me")
```

Arguments

draft	the draft to send
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.drafts/send>

See Also

Other draft: `gm_delete_draft()`, `gm_drafts()`, `gm_draft()`

Examples

```
## Not run:
draft <- gm_create_draft(gm_mime(
  From = "you@me.com", To = "any@one.com",
  Subject = "hello", "how are you doing?"
))
gm_send_draft(draft)

## End(Not run)
```

---

gm_send_message   *Send a message from a mime message*

Description

Send a message from a mime message

Usage

```
gm_send_message(
  mail,
  type = c("multipart", "media", "resumable"),
  thread_id = NULL,
  user_id = "me"
)
```

Arguments

mail	mime mail message created by mime
type	the type of upload to perform
thread_id	the id of the thread to send from.
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

https://developers.google.com/gmail/api/reference/rest/v1/users.messages/send

See Also

Other message: gm_attachment(), gm_delete_message(), gm_import_message(), gm_insert_message(), gm_messages(), gm_message(), gm_modify_message(), gm_save_attachments(), gm_save_attachment(), gm_trash_message(), gm_untrash_message()

Examples

```
## Not run:
gm_send_message(gm_mime(
  from = "you@me.com", to = "any@one.com",
  subject = "hello", "how are you doing?"
))

## End(Not run)
```

---

gm_thread *Get a single thread*

Description

Function to retrieve a given thread by id

Usage

```
gm_thread(id, user_id = "me")
```

Arguments

id   thread id to access

user_id   gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.threads>

See Also

Other thread: `gm_delete_thread()`, `gm_modify_thread()`, `gm_threads()`, `gm_trash_thread()`,
`gm_untrash_thread()`

Examples

```
## Not run:
my_thread <- gm_thread(12345)

## End(Not run)
```

---

gm_threads *Get a list of threads*

Description

Get a list of threads possibly matching a given query string.

Usage

```
gm_threads(
  search = NULL,
  num_results = NULL,
  page_token = NULL,
  label_ids = NULL,
  include_spam_trash = NULL,
  user_id = "me"
)
```

Arguments

search	query to use, same format as gmail search box.
num_results	the number of results to return.
page_token	retrieve a specific page of results
label_ids	restrict search to given labels
include_spam_trash	
	boolean whether to include the spam and trash folders in the search
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.threads/list>

See Also

Other thread: `gm_delete_thread()`, `gm_modify_thread()`, `gm_thread()`, `gm_trash_thread()`, `gm_untrash_thread()`

Examples

```
## Not run:
my_threads <- gm_threads()

first_10_threads <- gm_threads(10)

## End(Not run)
```

---

gm_to   *Methods to get values from message or drafts*

Description

Methods to get values from message or drafts

Usage

```
gm_to(x, ...)

gm_from(x, ...)

gm_cc(x, ...)

gm_bcc(x, ...)

gm_date(x, ...)

gm_subject(x, ...)
```

Arguments

x	the object from which to get or set the field
...	other parameters passed to methods

---

gm_token   *Produce configured token*

Description

For internal use or for those programming around the Gmail API. Returns a token pre-processed with `httr::config()`. Most users do not need to handle tokens "by hand" or, even if they need some control, `gm_auth()` is what they need. If there is no current token, `gm_auth()` is called to either load from cache or initiate OAuth2.0 flow. If auth has been deactivated via `gm_deauth()`, gm_token() returns NULL.

Usage

```
gm_token()
```

Value

A `request` object (an S3 class provided by [httr]).

See Also

Other low-level API functions: `gm_has_token()`

Examples

```
gm_token()
```

---

gm_token_write   *Write/read a gmailr user token*

Description

[Experimental]

This pair of functions writes an OAuth2 user token to file and reads it back in. This is rarely necessary when working in your primary, interactive computing environment. In that setting, it is recommended to lean into the automatic token caching built-in to gmailr / gargle. However, when preparing a user token for use elsewhere, such as in CI or in a deployed data product, it can be useful to take the full control granted by `gm_token_write()` and `gm_token_read()`.

Below is an outline of the intended workflow, but you will need to fill in particulars, such as filepaths and environment variables:

- Do auth in your primary, interactive environment as the target user, with the desired OAuth client and scopes.

```
gm_auth_configure()
gm_auth("jane@example.com", cache = FALSE)
```

- Confirm you are logged in as the intended user:

```
gm_profile()
```

- Write the current token to file:

```
gm_token_write(
  path = "path/to/gmailr-token.rds",
  key = "GMAILR_KEY"
)
```

- In the deployed, non-interactive setting, read the token from file and tell gmailr to use it:

```
gm_auth(token = gm_token_read(
  path = "path/to/gmailr-token.rds",
  key = "GMAILR_KEY"
)
```

Usage

```
gm_token_write(token = gm_token(), path = "gmailr-token.rds", key = NULL)

gm_token_read(path = "gmailr-token.rds", key = NULL)
```

Arguments

token	A token with class [Token2.0](#) or an object of httr's class `request`, i.e. a token that has been prepared with [`httr::config()`](#) and has a [Token2.0](#) in the `auth_token` component.
path	The path to write to (`gm_token_write()`) or to read from (`gm_token_read()`).
key	Encryption key, as implemented by httr2's [secret functions](#). If absent, a built-in key is used. If supplied, the key should usually be the name of an environment variable whose value was generated with `gargle::secret_make_key()` (which is a copy of `httr2::secret_make_key()`). The key argument of `gm_token_read()` must match the key used in `gm_token_write()`.

Security

`gm_token_write()` and `gm_token_read()` have a more security-oriented implementation than the default token caching strategy. OAuth2 user tokens are somewhat opaque by definition, because they aren't written to file in a particularly transparent format. However, `gm_token_write()` always applies some additional obfuscation to make such credentials even more resilient against scraping by an automated tool. However, a knowledgeable R programmer could decode the credential with some effort. The default behaviour of `gm_token_write()` (called without key) is suitable for tokens stored in a relatively secure place, such as on Posit Connect within your organization.

To prepare a stored credential for exposure in a more public setting, such as on GitHub or CRAN, you must actually encrypt it, using a key known only to you. You must make the encryption key available via a secure environment variable in any setting where you wish to decrypt and use the token, such as on GitHub Actions.

---

gm_trash_message	*Send a single message to the trash*

Description

Function to trash a given message by id. This can be undone by [gm_untrash_message()](#).

Usage

```
gm_trash_message(id, user_id = "me")
```

Arguments

id	message id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/trash>

See Also

Other message: `gm_attachment()`, `gm_delete_message()`, `gm_import_message()`, `gm_insert_message()`,
`gm_messages()`, `gm_message()`, `gm_modify_message()`, `gm_save_attachments()`, `gm_save_attachment()`,
`gm_send_message()`, `gm_untrash_message()`

Examples

```
## Not run:
gm_trash_message("12345")

## End(Not run)
```

`gm_trash_thread`	*Send a single thread to the trash*

Description

Function to trash a given thread by id. This can be undone by `gm_untrash_thread()`.

Usage

```
gm_trash_thread(id, user_id = "me")
```

Arguments

`id`	thread id to access
`user_id`	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

https://developers.google.com/gmail/api/reference/rest/v1/users.threads/trash

See Also

Other thread: `gm_delete_thread()`, `gm_modify_thread()`, `gm_threads()`, `gm_thread()`, `gm_untrash_thread()`

Examples

```
## Not run:
gm_trash_thread(12345)

## End(Not run)
```

---

gm_untrash_message   *Remove a single message from the trash*

Description

Function to trash a given message by id. This can be undone by `gm_untrash_message()`.

Usage

```
gm_untrash_message(id, user_id = "me")
```

Arguments

id	message id to access
user_id	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.messages/trash>

See Also

Other message: `gm_attachment()`, `gm_delete_message()`, `gm_import_message()`, `gm_insert_message()`, `gm_messages()`, `gm_message()`, `gm_modify_message()`, `gm_save_attachments()`, `gm_save_attachment()`, `gm_send_message()`, `gm_trash_message()`

Examples

```
## Not run:
gm_untrash_message("12345")

## End(Not run)
```

---

gm_untrash_thread   *Remove a single thread from the trash.*

Description

Function to untrash a given thread by id. This can reverse the results of a previous `gm_trash_thread()`.

Usage

```
gm_untrash_thread(id, user_id = "me")
```

Arguments

`id`	thread id to access
`user_id`	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.threads/untrash>

See Also

Other thread: `gm_delete_thread()`, `gm_modify_thread()`, `gm_threads()`, `gm_thread()`, `gm_trash_thread()`

Examples

```
## Not run:
gm_untrash_thread(12345)

## End(Not run)
```

`gm_update_label`	*Update a existing label.*

Description

Get a specific label by id and user_id. `gm_update_label_patch()` is identical to `gm_update_label()` but the latter uses HTTP PATCH to allow partial update.

Usage

```
gm_update_label(id, label, user_id = "me")

gm_update_label_patch(id, label, user_id = "me")
```

Arguments

`id`	label id to update
`label`	the label fields to update
`user_id`	gmail user_id to access, special value of 'me' indicates the authenticated user.

References

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/update>

<https://developers.google.com/gmail/api/reference/rest/v1/users.labels/patch>

See Also

Other label: `gm_create_label()`, `gm_delete_label()`, `gm_labels()`, `gm_label()`

Other label: `gm_create_label()`, `gm_delete_label()`, `gm_labels()`, `gm_label()`

---

quoted_printable_encode

Encode text using quoted printable

Description

Does no do any line wrapping of the output to 76 characters Implementation derived from the perl MIME::QuotedPrint

Usage

```
quoted_printable_encode(data)
```

Arguments

data   data to encode

References

<http://search.cpan.org/~gaas/MIME-Base64-3.14/QuotedPrint.pm>

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