

Package ‘fredr’

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Title An R Client for the 'FRED' API

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Description An R client for the 'Federal Reserve Economic Data' (FRED) API <<https://research.stlouisfed.org/docs/api/>>. Functions to retrieve economic time series and other data from 'FRED'.

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URL <https://github.com/sboysel/fredr>

BugReports <https://github.com/sboysel/fredr/issues>

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fredr-key

FRED API key

Description

Users of fredr must authenticate with the FRED API by use of an API key. This key should be stored as an environment variable, FRED_API_KEY.

- fredr_get_key() will retrieve the key, if set, or it will return NULL if the key is unset.
- fredr_set_key() will set the key *for the current R session*. For persistence across sessions, set the environment variable. See the Details section for more information.
- fredr_has_key() returns TRUE if a key can be found. Otherwise it returns FALSE.

Usage

```
fredr_set_key(key)
```

```
fredr_get_key()
```

```
fredr_has_key()
```

Arguments

key A valid FRED API key as a string. Obtain one at the [API Keys](#) page. Can also be NULL to unset the key for the current R session.

Details

The preferred method to set the key is to set the FRED_API_KEY environment variable in an `.Renviron` file. The easiest way to do this is by calling `usethis::edit_r_environ()`. Don't forget to restart R after setting the key.

References

See St. Louis Fed Web Services [API Keys](#) to obtain an API key.

See Also

Note that by using a FRED API key, you agree to the FRED API [Terms of Use](#).

Examples

```
original_key <- fredr_get_key()

# Set a once per session key
fredr_set_key("foo")

# Get it
fredr_get_key()

# Reset to original key
fredr_set_key(original_key)
```

fredr_category	<i>Get a FRED category</i>
----------------	----------------------------

Description

Get a FRED category

Usage

```
fredr_category(category_id)
```

Arguments

`category_id` An integer ID for the category.

Value

A tibble object containing the name and parent ID for the category indicated by `category_id`.

API Documentation

[fred/category](#)

See Also

[fredr_category_children\(\)](#), [fredr_category_related\(\)](#), [fredr_category_series\(\)](#), [fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # Root category  
  fredr_category(category_id = 0L)  
  # "Production & Business Activity" category  
  fredr_category(category_id = 1L)  
}
```

`fredr_category_children`

Get the child categories for a specified FRED parent category

Description

Get the child categories for a specified FRED parent category

Usage

```
fredr_category_children(  
  category_id,  
  ...,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

category_id	An integer ID for the category.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object containing the name and ID for the children categories of the parent category indicated by category_id.

API Documentation

[fred/category/children](#)

See Also

[fredr_category\(\)](#), [fredr_category_related\(\)](#), [fredr_category_series\(\)](#), [fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # Children of the root category  
  fredr_category_children(category_id = 0L)  
  # Children of the "Production & Business Activity" category  
  fredr_category_children(category_id = 1L)  
}
```

fredr_category_related

Get the related categories for a FRED category.

Description

Get the related categories for a FRED category.

Usage

```
fredr_category_related(  
  category_id,  
  ...,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

category_id	An integer ID for the category. Default is 0 for the root category. <i>Required parameter.</i>
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Details

From the [FRED API documentation](#): "A related category is a one-way relation between 2 categories that is not part of a parent-child category hierarchy. Most categories do not have related categories."

Value

A tibble object containing the name and parent ID for categories related to the category indicated by category_id.

API Documentation

[fred/category/related](#)

See Also

[fredr_category\(\)](#), [fredr_category_children\(\)](#), [fredr_category_series\(\)](#), [fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {
# Categories related to the "Employment Cost Index" category
fredr_category_related(category_id = 4L)
}
```

```
fredr_category_related_tags
```

Get the related FRED tags within a category

Description

Get the related FRED tags for one or more FRED tags within a category. Optionally, filter results by tag group or search. FRED tags are attributes assigned to series. Related FRED tags are the tags assigned to series that match *all* tags in the *tag_names* parameter, *no* tags in the *exclude_tag_names* parameter, and the category set by the *category_id* parameter. Series are assigned tags and categories. Indirectly through series, it is possible to get the tags for a category. No tags exist for a category that does not have series.

Usage

```
fredr_category_related_tags(
  category_id,
  tag_names,
  ...,
  exclude_tag_names = NULL,
  tag_group_id = NULL,
  search_text = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

<code>category_id</code>	An integer ID for the category.
<code>tag_names</code>	A string indicating which series tags to match. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
<code>...</code>	These dots only exist for future extensions and should be empty.
<code>exclude_tag_names</code>	A string indicating which series tags should <i>not</i> be matched. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
<code>tag_group_id</code>	A string representing the tag group id to filter tags by type. No filtering by default. Possible values include: <ul style="list-style-type: none"> "freq" - Frequency "gen" - General or Concept "geo" - Geography "geot" - Geography Type "rls" - Release "seas" - Seasonal Adjustment "src" - Source
<code>search_text</code>	A string to match text of tags. No matching by default.
<code>limit</code>	An positive integer indicating maximum number of results to return. Possible values are any integer between 1 and 1000 (default), inclusive.
<code>offset</code>	An non-negative integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
<code>order_by</code>	Order results by values of the specified attribute. Possible values include: "series_count" (default), "popularity"`, "created", "name", "group_id"`.
<code>sort_order</code>	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".

- `realtime_start` A Date indicating the start of the real-time period. Defaults to today's date. For more information, see [Real-Time Periods](#).
- `realtime_end` A Date indicating the end of the real-time period. Defaults to today's date. For more information, see [Real-Time Periods](#).

Value

A tibble object information on related tags matching the request. Data include tag name, group ID, popularity, series count, tag creation date, and additional notes.

API Documentation

[fred/category/related_tags](#)

See Also

[fredr_category\(\)](#), [fredr_category_children\(\)](#), [fredr_category_related\(\)](#), [fredr_category_series\(\)](#), [fredr_category_tags\(\)](#)

Examples

```
if (fredr_has_key()) {
  # First, get the tags for the "Production & Business Activity" category
  fredr_category_tags(1L)
  # Then, get the tags related to "business" and "monthly" for the
  # "Production & Business Activity" category
  fredr_category_related_tags(category_id = 1L, tag_names = "business;monthly")
}
```

`fredr_category_series` *Get the series in a category*

Description

Get the series in a category

Usage

```
fredr_category_series(
  category_id,
  ...,
  filter_variable = NULL,
  filter_value = NULL,
  tag_names = NULL,
  exclude_tag_names = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
```

```

    sort_order = NULL,
    realtime_start = NULL,
    realtime_end = NULL
)

```

Arguments

category_id	An integer ID for the category.
...	These dots only exist for future extensions and should be empty.
filter_variable	A string indicating which attribute to indicate the attribute that results are filtered by. Possible values include: "frequency", "units", "seasonal_adjustment". No filtering by default.
filter_value	A string giving the value of the filter_variable attribute to filter results by. filter_variable must be set. No filtering by default.
tag_names	A string indicating which series tags to match. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
exclude_tag_names	A string indicating which series tags should <i>not</i> be matched. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
limit	An positive integer indicating maximum number of results to return. Possible values are any integer between 1 and 1000 (default), inclusive.
offset	An non-negative integer used in conjunction with limit for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating an attribute by which the results are ordered by. Possible values include: <ul style="list-style-type: none"> • "series_id" (default) • "title" • "units" • "frequency" • "seasonal_adjustment" • "realtime_start" • "realtime_end" • "last_updated" • "observation_start" • "observation_end" • "popularity" • "group_popularity"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object with information for series matching the request for the category specified in `category_id`.

API Documentation

[fred/category/series](#)

See Also

[fredr_category\(\)](#), [fredr_category_children\(\)](#), [fredr_category_related\(\)](#), [fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # Top 10 most popular series belonging to the "Employment Cost Index" category  
  fredr_category_series(category_id = 1L, limit = 10L, order_by = "popularity")  
  # Series in the "Employment Cost Index" category, ordered by descending observation frequency  
  fredr_category_series(category_id = 4L, order_by = "frequency", sort_order = "desc")  
}
```

fredr_category_tags *Get the FRED tags for a category*

Description

Get the FRED tags for a category. Optionally, filter results by tag name, tag group, or search. Series are assigned tags and categories. Alternatively, it is possible to get the tags for a category through a call to a function in the `fredr/series` endpoint. See [fredr_series](#). No tags exist for a category that does not have series.

Usage

```
fredr_category_tags(  
  category_id,  
  ...,  
  tag_names = NULL,  
  tag_group_id = NULL,  
  search_text = NULL,  
  limit = NULL,  
  offset = NULL,  
  order_by = NULL,  
  sort_order = NULL,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

category_id	An integer ID for the category.
...	These dots only exist for future extensions and should be empty.
tag_names	A string indicating which series tags to match. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
tag_group_id	A string representing the tag group id to filter tags by type. No filtering by default. Possible values include: <ul style="list-style-type: none"> • "freq" - Frequency • "gen" - General or Concept • "geo" - Geography • "geot" - Geography Type • "rls" - Release • "seas" - Seasonal Adjustment • "src" - Source
search_text	A string to match text of tags. No matching by default.
limit	An positive integer indicating maximum number of results to return. Possible values are any integer between 1 and 1000 (default), inclusive.
offset	An non-negative integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values include: "series_count" (default), "popularity"`, "created", "name", "group_id"`.
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object information on tags matching the request and their descriptions. Data include tag name, group ID, popularity, series count, tag creation date, and additional notes.

API Documentation

[fred/category/tags](#)

See Also

[fredr_category\(\)](#), [fredr_category_children\(\)](#), [fredr_category_related\(\)](#), [fredr_category_series\(\)](#), [fredr_category_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {
  # Tags assigned to series in the "Production & Business Activity" category
  fredr_category_tags(category = 1L)
  # Select the "nation" and "monthly" tags in the "Production & Business Activity" category
  fredr_category_tags(category = 3L, tag_names = "nation;monthly", order_by = "popularity")
}
```

fredr_docs

Open the web documentation for a certain FRED API topic.

Description

Opens FRED API web documentation in a new web browser tab.

Usage

```
fredr_docs()
```

API Documentation

FRED API

Examples

```
if (interactive()) {
  fredr_docs()
}
```

fredr_endpoints

List of available FRED API endpoints.

Description

List of available FRED API endpoints.

Usage

```
fredr_endpoints
```

Format

A tibble with 31 rows and 3 variables:

endpoint endpoint name (e.g. "fred/category", "fredr/series/observations", "fredr/tags"). This name can be supplied to the endpoint parameter in `fredr_docs()` to open the **FRED API endpoint documentation** in a web browser.

type endpoint type (e.g. "Categories", "Releases", "Series", "Sources", and "Tags".)

note endpoint details

API Documentation**FRED API****See Also**

[fredr_request\(\)](#), [fredr_docs\(\)](#)

fredr_related_tags *Get related FRED tags given one or more tags*

Description

Get related FRED tags. Optionally, filter results by tag group, or search text. Related FRED tags are the tags assigned to series that match *all* tags in the tag_names parameter and *no* tags in the exclude_tag_names parameter.

Usage

```
fredr_related_tags(
    tag_names,
    ...,
    exclude_tag_names = NULL,
    tag_group_id = NULL,
    search_text = NULL,
    limit = NULL,
    offset = NULL,
    order_by = NULL,
    sort_order = NULL,
    realtime_start = NULL,
    realtime_end = NULL
)
```

Arguments

tag_names	A semicolon delimited string of tag names to be related to.
...	These dots only exist for future extensions and should be empty.
exclude_tag_names	A semicolon delimited string of tag names that series match <i>none</i> of. No exclusions are done by default.
tag_group_id	A string tag group id to filter tags by type. No filtering by tag group by default. Possible values are: <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type

	<ul style="list-style-type: none"> • "rls" = Release • "seas" = Seasonal Adjustment • "src" = Source
search_text	A string indicating the words to find matching tags with. No filtering by search words by default.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values are: <ul style="list-style-type: none"> • "series_count" (default) • "popularity" • "created" • "name" • "group_id"
sort_order	A string representing the order of the resulting series, sorted by the attribute values specified by <code>order_by</code> . Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble containing tags related to `tag_names` and their descriptions. Data include tag name, group ID, popularity, series count, tag creation date, and additional notes.

API Documentation

[fred/related_tags](#)

See Also

[fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#), [fredr_docs\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_tags_series\(\)](#), [fredr_tags\(\)](#)

Examples

```
if (fredr_has_key()) {

  fredr_related_tags(tag_names = "monetary aggregates;weekly")

  fredr_related_tags(
    tag_names = "monetary aggregates;weekly",
    tag_group_id = "gen"
  )
}
```

```
)
}
```

fredr_release	<i>Get a release of economic data</i>
---------------	---------------------------------------

Description

Get a release of economic data

Usage

```
fredr_release(release_id, ..., realtime_start = NULL, realtime_end = NULL)
```

Arguments

release_id	An integer ID of the release.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {
# Release as of today
fredr_release(release_id = 20)

# For some releases, adding realtime dates returns the history of changes
# the release went through
fredr_release(9, realtime_start = as.Date("1950-01-01"))
}
```

fredr_releases *Get all releases of economic data*

Description

Get all releases of economic data

Usage

```
fredr_releases(
  ...,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

...	These dots only exist for future extensions and should be empty.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values include: 'release_id' (default), 'name', 'press_release', 'realtime_start', 'realtime_end'.
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/releases](#)

See Also

[fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_series\(\)](#),
[fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#),

Examples

```
if (fredr_has_key()) {
  fredr_releases(limit = 20L)
}
```

fredr_releases_dates *Get release dates for all releases of economic data.*

Description

Get release dates for *all* releases of economic data. Note that release dates are published by data sources and do not necessarily represent when data will be available on the FRED or ALFRED websites.

Usage

```
fredr_releases_dates(
  ...,
  limit = NULL,
  offset = NULL,
  sort_order = NULL,
  order_by = NULL,
  include_release_dates_with_no_data = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

...	These dots only exist for future extensions and should be empty.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
sort_order	A string representing the order of the resulting series. Possible values are: "asc" and "desc" (default).
order_by	Order results by values of the specified attribute. Possible values include: 'release_date' (default), 'release_id', 'release_name'.

include_release_dates_with_no_data	A boolean value indicating if the results with no data available should be returned as well. Default is FALSE.
realtime_start	A Date indicating the start of the real-time period. Defaults to the first day of the current year. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to 9999-12-31 (latest available). For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/releases/dates](#)

See Also

[fredr_releases\(\)](#), [fredr_release_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {
  fredr_releases_dates(limit = 20L)
}
```

fredr_release_dates *Get release dates for a single release of economic data*

Description

Get release dates for a single release of economic data

Usage

```
fredr_release_dates(
  release_id,
  ...,
  limit = NULL,
  offset = NULL,
  sort_order = NULL,
  include_release_dates_with_no_data = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

release_id	An integer ID of the release.
...	These dots only exist for future extensions and should be empty.
limit	An integer limit on the maximum number of results to return. Defaults to 10000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
sort_order	A string representing the order of the resulting release dates. Possible values are: "asc" (default), and "desc".
include_release_dates_with_no_data	A boolean value indicating if the results with no data available should be returned as well. Default is FALSE.
realtime_start	A Date indicating the start of the real-time period. Defaults to 1776-07-04 (earliest available). For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to 9999-12-31 (latest available). For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release/dates](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {
  fredr_release_dates(release_id = 20L)

  # Call the function with an "as of" Date of 1997-03-14
  fredr_release_dates(release_id = 20L, realtime_end = as.Date("1997-03-14"))
}
```

 fredr_release_related_tags

Get the related FRED tags for one or more FRED tags within a release

Description

FRED tags are attributes assigned to series. For this request, related FRED tags are the tags assigned to series that match all tags in the tag_names parameter, no tags in the exclude_tag_names parameter, and the release set by the release_id parameter.

Usage

```
fredr_release_related_tags(
  release_id,
  tag_names,
  ...,
  exclude_tag_names = NULL,
  tag_group_id = NULL,
  search_text = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

release_id	An integer ID of the release.
tag_names	A semicolon delimited string of tag names to be related to.
...	These dots only exist for future extensions and should be empty.
exclude_tag_names	A semicolon delimited string of tag names that series match <i>none</i> of. No exclusions are done by default.
tag_group_id	A string tag group id to filter tags by type. No filtering by tag group by default. Possible values are: <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type • "rls" = Release • "seas" = Seasonal Adjustment • "src" = Source

search_text	A string indicating the words to find matching tags with. No filtering by search words by default.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values are: <ul style="list-style-type: none">• "series_count" (default)• "popularity"• "created"• "name"• "group_id"
sort_order	A string representing the order of the resulting series, sorted by the attribute values specified by <code>order_by</code> . Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release/related_tags](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {  
  fredr_release_related_tags(10, tag_names = "cpi")  
}
```

fredr_release_series *Get the series on a release of economic data*

Description

Get the series on a release of economic data

Usage

```
fredr_release_series(
  release_id,
  ...,
  filter_variable = NULL,
  filter_value = NULL,
  tag_names = NULL,
  exclude_tag_names = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

release_id	An integer ID of the release.
...	These dots only exist for future extensions and should be empty.
filter_variable	A string indicating which attribute to indicate the attribute that results are filtered by. Possible values include: "frequency", "units", "seasonal_adjustment". No filtering by default.
filter_value	A string giving the value of the filter_variable attribute to filter results by. filter_variable must be set. No filtering by default.
tag_names	A string indicating which series tags to match. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
exclude_tag_names	A string indicating which series tags should <i>not</i> be matched. Multiple tags can be delimited by a semicolon in a single string (e.g. "usa;gnp").
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with limit for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.

order_by	A string indicating an attribute by which the results are ordered by. Possible values include: <ul style="list-style-type: none"> • "series_id" (default) • "title" • "units" • "frequency" • "seasonal_adjustment" • "realtime_start" • "realtime_end" • "last_updated" • "observation_start" • "observation_end" • "popularity" • "group_popularity"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release/series](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {
  fredr_release_series(release_id = 20L)

  fredr_release_series(release_id = 20L, order_by = "popularity")

  # Extract the "catalog" of series from a release on a certain date
  fredr_release_series(
    release_id = 20L,
    realtime_end = as.Date("2018-07-13"),
    order_by = "popularity"
  )
}
```

fredr_release_sources *Get the sources for a release of economic data*

Description

Get the sources for a release of economic data

Usage

```
fredr_release_sources(  
  release_id,  
  ...,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

release_id	An integer ID of the release.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release/sources](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_series\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # Where does the data for ID 10 come from?  
  fredr_release_sources(release_id = 10L)  
}
```

fredr_release_tables *Get release table trees for a given release*

Description

You can go directly to the tree structure by passing the appropriate `element_id`. You may also use a drill-down approach to start at the root (top most) element by leaving the `element_id` off.

Usage

```
fredr_release_tables(  
  release_id,  
  ...,  
  element_id = NULL,  
  include_observation_values = NULL,  
  observation_date = NULL  
)
```

Arguments

`release_id` An integer ID of the release.

... These dots only exist for future extensions and should be empty.

`element_id` An integer ID for the desired release table element.

`include_observation_values` A boolean indicating if observations should be returned with the release table element. Observations will only be returned for a series type element. Default is FALSE.

`observation_date` A Date indicating which observation date to include with the release table. Default is 9999-12-31 (latest date available).

Value

A tibble object with nested results.

API Documentation

[fred/release/tables](#)

See Also

[fredr_releases\(\)](#), [fredr_release_dates\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#)

Examples

```

if (fredr_has_key()) {
  fredr_release_tables(release_id = 10L)

  # Digging further into a release element
  fredr_release_tables(release_id = 53L, element_id = 12886)
}

```

fredr_release_tags *Get the FRED tags for a release*

Description

Get the FRED tags for a release. Optionally, filter results by tag name, tag group, or search text.

Usage

```

fredr_release_tags(
  release_id,
  ...,
  tag_names = NULL,
  tag_group_id = NULL,
  search_text = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)

```

Arguments

release_id	An integer ID of the release.
...	These dots only exist for future extensions and should be empty.
tag_names	A semicolon delimited string of tag names to only include in the response. No filtering by tag names by default (i.e. <i>all</i> FRED tags returned).
tag_group_id	A string tag group id to filter tags by type. No filtering by tag group by default. Possible values are: <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type • "rls" = Release • "seas" = Seasonal Adjustment

	<ul style="list-style-type: none"> • "src" = Source
search_text	A string indicating the words to find matching tags with. No filtering by search words by default.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values are: <ul style="list-style-type: none"> • "series_count" (default) • "popularity" • "created" • "name" • "group_id"
sort_order	A string representing the order of the resulting series, sorted by the attribute values specified by <code>order_by</code> . Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/release/tags](#)

See Also

[fredr_releases\(\)](#), [fredr_releases_dates\(\)](#), [fredr_release\(\)](#), [fredr_release_dates\(\)](#), [fredr_release_series\(\)](#), [fredr_release_sources\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_release_tables\(\)](#)

Examples

```
if (fredr_has_key()) {
  fredr_release_tags(release_id = 10L)
}
```

fredr_request	<i>Send a request to the FRED API</i>
---------------	---------------------------------------

Description

Send a general request to the FRED API by specifying an endpoint and a sequence of parameters. The `fredr_request()` function forms and submits a request to a specified endpoint of the FRED API. The result is either the response object from `httr::GET()` or the response parsed as a tibble.

Usage

```
fredr_request(
  endpoint,
  ...,
  to_frame = TRUE,
  print_req = FALSE,
  retry_times = 3L
)
```

Arguments

<code>endpoint</code>	A string representing the FRED API endpoint of interest. See fredr_endpoints for a list of endpoint possible values. <i>Required parameter.</i>
<code>...</code>	A series of named parameters to be used in the query. Must be of the form <code>param_key = "param_value"</code> . Acceptable parameters are endpoint-specific. See the fredr_endpoints data frame for a list of endpoints and fredr_docs() to access the web documentation for each endpoint function.
<code>to_frame</code>	A boolean value indicating whether or not the response should be parsed and formatted as a data frame. If <code>FALSE</code> , a response object is returned and further processing can be done with <code>httr::content()</code> . Default is <code>TRUE</code> .
<code>print_req</code>	A boolean value indicating whether or not the request should be printed as well. Useful for debugging. Default is <code>FALSE</code> .
<code>retry_times</code>	An integer indicating the maximum number of requests to attempt. Passed directly to <code>httr::RETRY()</code> . Default is 3.

Value

If `to_frame = TRUE`, a tibble containing the parsed response. If `to_frame = FALSE`, a response object returned directly from `httr::GET()`.

API Documentation

[FRED API](#)

Examples

```

if (fredr_has_key()) {
  fredr_request(
    endpoint = "series/observations",
    series_id = "GNPCA",
    observation_start = "1990-01-01",
    observation_end = "2000-01-01"
  )

  # Compare to to_frame = `FALSE`
  resp <- fredr_request(
    endpoint = "series/observations",
    series_id = "GNPCA",
    observation_start = "1990-01-01",
    observation_end = "2000-01-01",
    to_frame = FALSE
  )
}

```

fredr_series

*Return basic information for a FRED series.***Description**

Given a series ID, return basic information for a FRED series. Note that this function will *not* return the actual series data. For this functionality, see [fredr_series_observations\(\)](#).

Usage

```
fredr_series(series_id, ..., realtime_start = NULL, realtime_end = NULL)
```

Arguments

series_id	A string ID for the FRED series.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object (1 row) with information for the series specified by series_id.

API Documentation

[fred/series](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#),
[fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series_categories\(\)](#),
[fredr_series_release\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {
  # Return information for the "UNRATE" series
  fredr_series(series_id = "UNRATE")
}
```

```
fredr_series_categories
```

Get the categories for a FRED series

Description

Given a series ID, return information on the categories to which a series belongs as a tibble object.

Usage

```
fredr_series_categories(
  series_id,
  ...,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

<code>series_id</code>	A string ID for the FRED series.
<code>...</code>	These dots only exist for future extensions and should be empty.
<code>realtime_start</code>	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
<code>realtime_end</code>	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object with information on the categories to which the series specified by `series_id` belongs. Data include category ID, name, parent category ID, and notes.

API Documentation

[fred/series/categories](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#),
[fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_release\(\)](#),
[fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {  
  # Return the categories to which the "UNRATE" series belongs  
  fredr_series_categories(series_id = "UNRATE")  
}
```

fredr_series_observations

Get observations of a FRED series

Description

Given a series ID, return observations of that series as a tibble object. `fredr()` is an alias for `fredr_series_observations()`.

Usage

```
fredr_series_observations(  
  series_id,  
  ...,  
  observation_start = NULL,  
  observation_end = NULL,  
  frequency = NULL,  
  aggregation_method = NULL,  
  limit = NULL,  
  offset = NULL,  
  sort_order = NULL,  
  units = NULL,  
  realtime_start = NULL,  
  realtime_end = NULL,  
  vintage_dates = NULL,  
  output_type = NULL  
)
```

```
fredr(  
  series_id,  
  ...,  
  observation_start = NULL,  
  observation_end = NULL,  
  frequency = NULL,  
  aggregation_method = NULL,
```

```

limit = NULL,
offset = NULL,
sort_order = NULL,
units = NULL,
realtime_start = NULL,
realtime_end = NULL,
vintage_dates = NULL,
output_type = NULL
)

```

Arguments

series_id	A string ID for the FRED series.
...	These dots only exist for future extensions and should be empty.
observation_start	A Date indicating the start of the observation period. Defaults to 1776-07-04, the earliest available date.
observation_end	A Date indicating the end of the observation period. Defaults to 9999-12-31, the latest available date.
frequency	A string representing a lower frequency to aggregate to. Defaults to no frequency aggregation. Possible values are: <ul style="list-style-type: none"> • "d" - Daily • "w" - Weekly • "bw" - Biweekly • "m" - Monthly • "q" - Quarterly • "sa" - Semiannual • "a" - Annual • "wem" - Weekly, ending Monday • "wetu" - Weekly, ending Tuesday • "wew" - Weekly, ending Wednesday • "weth" - Weekly, ending Thursday • "wef" - Weekly, ending Friday • "wesa" - Weekly, ending Saturday • "wesu" - Weekly, ending Sunday • "bwew" - Biweekly, ending Wednesday • "bwem" - Biweekly, ending Monday
aggregation_method	A string representing the aggregation method used for frequency aggregation. This parameter has no affect is frequency is not set. Possible values are: <ul style="list-style-type: none"> • "avg" for average • "sum" for sum • "eop" for end of period value

<code>limit</code>	An integer limit on the maximum number of results to return. Defaults to 100000, the maximum.
<code>offset</code>	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
<code>sort_order</code>	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
<code>units</code>	A string indicating the data value transformation. Defaults to "lin". Possible values are: <ul style="list-style-type: none"> • "lin" - Levels (No transformation) • "chg" - Change • "ch1" - Change from 1 year ago • "pch" - Percent change • "pc1" - Percent change from 1 year ago • "pca" - Compounded annual rate of change • "cch" - Continuously compounded rate of change • "cca" - Continuously compounded annual rate of change • "log" - Natural log
<code>realtime_start</code>	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
<code>realtime_end</code>	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
<code>vintage_dates</code>	A vector of Date objects to download data for. Vintage dates are used to download data as it existed on these specified dates in history. They can be specified instead of a real-time period using <code>realtime_start</code> and <code>realtime_end</code> . Defaults to no vintage dates.
<code>output_type</code>	An integer indicating the output type. Not used unless <code>realtime_start</code> is used. Possible values are: <ul style="list-style-type: none"> • 1 for Observations by Real-Time Period (default) • 2 for Observations by Vintage Date, All Observations • 3 for Observations by Vintage Date, New and Revised Observations Only • 4 for Observations, Initial Release Only.

Value

A tibble object with observation dates and values.

API Documentation

[fred/series/observations](#)

See Also

[fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_release\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```

if (fredr_has_key()) {
# Observations for "UNRATE" series between 1980 and 2000. Units are in terms
# of change from previous observation.
fredr(
  series_id = "UNRATE",
  observation_start = as.Date("1980-01-01"),
  observation_end = as.Date("2000-01-01"),
  units = "chg"
)
# All observations for "OILPRICE" series. The data is first aggregated by
# quarter by taking the average of all observations in the quarter then
# transformed by taking the natural logarithm.
fredr(
  series_id = "OILPRICE",
  frequency = "q",
  aggregation_method = "avg",
  units = "log"
)

# To retrieve values for multiple series, use purrr's map_dfr() function.

if (requireNamespace("purrr", quietly = TRUE)) {

  library(purrr)
  purrr::map_dfr(c("UNRATE", "OILPRICE"), fredr)

  # Using purrr::pmap_dfr() allows you to use varying optional parameters
  params <- list(
    series_id = c("UNRATE", "OILPRICE"),
    frequency = c("m", "q")
  )

  purrr::pmap_dfr(
    .l = params,
    .f = ~ fredr(series_id = .x, frequency = .y)
  )

}

}

```

fredr_series_release *Get the release for a FRED series*

Description

Given a series ID, return information on a series as a tibble object.

Usage

```
fredr_series_release(  
  series_id,  
  ...,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

series_id	A string ID for the FRED series.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object with information on the release for the series specified by the `series_id` parameter. Data include release ID, real-time periods, release name, and links to press releases, if available.

API Documentation

[fred/series/release](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {  
  # Get release information for the "UNRATE" series  
  fredr_series_release(series_id = "UNRATE")  
}
```

fredr_series_search_related_tags

Get the related FRED tags for one or more FRED tags matching a series search

Description

FRED tags are attributes assigned to series. Return the *related* FRED tags for a search: tags assigned to series that match *all* tags in the tag_names parameter (required), *no* tags in the exclude_tag_names (optional) and the search words set by the series_search_text parameter (required).

Usage

```
fredr_series_search_related_tags(
    series_search_text,
    tag_names,
    ...,
    exclude_tag_names = NULL,
    tag_group_id = NULL,
    tag_search_text = NULL,
    limit = NULL,
    offset = NULL,
    order_by = NULL,
    sort_order = NULL,
    realtime_start = NULL,
    realtime_end = NULL
)
```

Arguments

series_search_text	A string containing the series search text.
tag_names	A semicolon delimited string of tag names to return.
...	These dots only exist for future extensions and should be empty.
exclude_tag_names	A semicolon delimited string of tag names that series match <i>none</i> of. Defaults to no tag filtering.
tag_group_id	A string indicating the tag group id to filter tags by type. Defaults to no filtering by tag group. Possible values are <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type • "rls" = Release • "seas" = Seasonal Adjustment

	<ul style="list-style-type: none"> • "src" = Source
tag_search_text	A string to match tag names. Defaults to no filtering by tag name matching.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating the attribute to order results by. Defaults to "series_count". Possible values are: <ul style="list-style-type: none"> • "series_count" • "popularity" • "created" • "name" • "group_id"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

References

API Documentation:
[series/search/related_tags](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#),
[fredr_series_search_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_release\(\)](#),
[fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {
# Search for all tags matching the series text "oil" and the tag "usa".
fredr_series_search_related_tags(
  series_search_text = "oil",
  tag_names = "usa"
)
# Search for tags matching the series text "oil", the tag text "usa", and
# are related to the tag "usa". Return only results in the "src" (Source)
```

```
# group.
fredr_series_search_related_tags(
  series_search_text = "oil",
  tag_names = "usa",
  tag_group_id = "src",
  tag_search_text = "usa"
)
}
```

fredr_series_search_tags

Get the FRED tags for a series search.

Description

Return the FRED tags by searching for matches in series text.

Usage

```
fredr_series_search_tags(
  series_search_text,
  ...,
  tag_names = NULL,
  tag_group_id = NULL,
  tag_search_text = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

series_search_text	A string containing the series search text.
...	These dots only exist for future extensions and should be empty.
tag_names	A semicolon delimited string of tag names to return. Defaults no filtering by tag names.
tag_group_id	A string indicating the tag group id to filter tags by type. Defaults to no filtering by tag group. Possible values are <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type

- "rls" = Release
- "seas" = Seasonal Adjustment
- "src" = Source

tag_search_text	A string to match tag names. Defaults to no filtering by tag name matching.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating the attribute to order results by. Defaults to "series_count". Possible values are: <ul style="list-style-type: none"> • "series_count" • "popularity" • "created" • "name" • "group_id"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object where each row represents a series tag matching the query. Data include the tag name, group ID, tag creation date, popularity, series count, and additional notes.

References

API Documentation:

[series/search/tags](#)

See Also

[fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_tags\(\)](#)

Examples

```
if (fredr_has_key()) {
# Search for tags matching the series text "gnp"
fredr_series_search_tags("gnp")
# Search for tags matching the series text "oil" and the tag text "usa"
fredr_series_search_tags(
```

```
    series_search_text = "oil",
    tag_search_text = "usa"
)
# Search for tags matching the series text "oil" and the tag text "usa".
# Return only results in the "geo" (Geography) group
fredr_series_search_tags(
  series_search_text = "oil",
  tag_group_id = "geo",
  tag_search_text = "usa"
)
}
```

fredr_series_search_text

Search for a FRED series.

Description

Search FRED for a series by full text of series or by series ID.

Usage

```
fredr_series_search_text(
  search_text,
  ...,
  tag_names = NULL,
  exclude_tag_names = NULL,
  filter_variable = NULL,
  filter_value = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

```
fredr_series_search_id(
  search_text,
  ...,
  limit = 1000L,
  offset = 0,
  order_by = NULL,
  sort_order = "asc",
  filter_variable = NULL,
  filter_value = NULL,
  realtime_start = NULL,
  realtime_end = NULL,
```

```

    tag_names = NULL,
    exclude_tag_names = NULL
)

```

Arguments

search_text	A string containing the words to match against economic data series. For use with <code>fredr_series_search_text</code> and <code>fredr_series_search_id</code> .
...	These dots only exist for future extensions and should be empty.
tag_names	A semicolon delimited string of tag names that series match <i>all</i> of. Defaults to no tag filtering.
exclude_tag_names	A semicolon delimited string of tag names that series match <i>none</i> of. Defaults to no tag filtering.
filter_variable	A string indicating the attribute to filter results by. Possible values are: "frequency", "units", "seasonal_adjustment". Defaults to no filter.
filter_value	The value of the <code>filter_variable</code> attribute to filter by. Possible values depend on the value of <code>filter_variable</code> . Defaults to no filter.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating the attribute to order results by. Defaults to "search_rank" for <code>fredr_series_search_text()</code> and "series_id" for <code>fredr_series_search_id()</code> . Possible values are: <ul style="list-style-type: none"> • "search_rank" • "series_id" • "title" • "units" • "frequency" • "seasonal_adjustment" • "realtime_start" • "realtime_end" • "last_updated" • "observation_start" • "observation_end" • "popularity" • "group_popularity"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object where each row represents a series matching the query.

References

API Documentation:

[series/search](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_release\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {  
  # search for series with text matching "oil" and return the top 10 most popular  
  # series  
  fredr_series_search_text(  
    search_text = "oil",  
    order_by = "popularity",  
    limit = 10  
  )  
  # search for series with text matching "oil" with the tag "usa" and return the  
  # top 10 search results  
  fredr_series_search_text(  
    search_text = "oil",  
    order_by = "search_rank",  
    limit = 10,  
    tag_names = "usa"  
  )  
  # search for series with text matching "unemployment" and return only series  
  # with monthly frequency  
  fredr_series_search_text(  
    search_text = "unemployment",  
    filter_variable = "frequency",  
    filter_value = "Monthly"  
  )  
  # search for series ID matching "UNRATE" and return oldest series first  
  fredr_series_search_id(  
    search_text = "UNRATE",  
    order_by = "observation_start"  
  )  
}
```

fredr_series_tags *Get the tags for a FRED series*

Description

Given a series ID, return associated tags for the series as a tibble object.

Usage

```
fredr_series_tags(
  series_id,
  ...,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

series_id	A string ID for the FRED series.
...	These dots only exist for future extensions and should be empty.
order_by	A string indicating the attribute by which to order the series. Possible values include "series_count" (default), "popularity", "created", "name", and "group_id".
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object where each row represents a tag associated with the series specified by series_id. Data include tag name, group ID, popularity, series count, tag creation date, and additional notes.

API Documentation

[fred/series/tags](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_release\(\)](#), [fredr_series_updates\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```

if (fredr_has_key()) {
# Return all tags assigned to the "UNRATE" series and order the results by
# group ID.
fredr_series_tags(series_id = "UNRATE", order_by = "group_id")
}

```

fredr_series_updates *Get a set of recently updated FRED series*

Description

Returns information on the recently updated series on the FRED server.

Usage

```

fredr_series_updates(
  ...,
  filter_value = NULL,
  start_time = NULL,
  end_time = NULL,
  limit = NULL,
  offset = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)

```

Arguments

...	These dots only exist for future extensions and should be empty.
filter_value	Filter results by type of geographic region of economic the data series. Possible values include <ul style="list-style-type: none"> "all" (default) - no filtering "macro" - filters results macroeconomic regions (e.g. entire countries) "regional" - filters results to series for regions of the United States such as states, counties, and Metropolitan Statistical Areas (MSA).
start_time	A datetime object indicating the start time to filter series updates results.
end_time	A datetime object indicating the start time to filter series updates results.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object where each row represents a series. Rows are sorted with most recently updated series appearing first.

API Documentation

[fred/series/updates](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_release\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_vintagedates\(\)](#).

Examples

```
if (fredr_has_key()) {  
  # Get all recently updated "regional" series  
  fredr_series_updates(filter_value = "regional")  
  # Most recently updated series are returned first  
  updates <- fredr_series_updates(filter_value = "regional")$last_updated  
  is.unsorted(rev(as.POSIXct(updates)))  
}
```

fredr_series_vintagedates

Get the data vintage dates for a FRED series

Description

Given a series ID, return a sequence of dates in history when a series' data values were revised or new data values were released as a tibble object.

Usage

```
fredr_series_vintagedates(  
  series_id,  
  ...,  
  limit = NULL,  
  offset = NULL,  
  sort_order = NULL,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

<code>series_id</code>	A string ID for the FRED series.
<code>...</code>	These dots only exist for future extensions and should be empty.
<code>limit</code>	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
<code>offset</code>	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
<code>sort_order</code>	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
<code>realtime_start</code>	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
<code>realtime_end</code>	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object where each row is a distinct vintage date.

API Documentation

[fred/series/vintagedates](#)

See Also

[fredr_series_observations\(\)](#), [fredr_series_search_text\(\)](#), [fredr_series_search_id\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_series\(\)](#), [fredr_series_release\(\)](#), [fredr_series_tags\(\)](#), [fredr_series_categories\(\)](#), [fredr_series_updates\(\)](#).

Examples

```
if (fredr_has_key()) {
  # All data vintages for the "UNRATE" series
  fredr_series_vintagedates(series_id = "UNRATE")
  # 10 most recent data vintages for the "UNRATE" series
  fredr_series_vintagedates(series_id = "UNRATE", limit = 10L, sort_order = "desc")
}
```

fredr_source

Get a source of economic data

Description

Get a source of economic data

Usage

```
fredr_source(source_id, ..., realtime_start = NULL, realtime_end = NULL)
```

Arguments

source_id	An integer ID for the data source.
...	These dots only exist for future extensions and should be empty.
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/source](#)

See Also

[fredr_sources\(\)](#), [fredr_source_releases\(\)](#)

Examples

```
if (fredr_has_key()) {  
  fredr_source(source_id = 14L)  
  
  # Has this source ID ever changed over time?  
  fredr_source(source_id = 14L, realtime_start = as.Date("1990-01-01"))  
}
```

fredr_sources	<i>Get all sources of economic data</i>
---------------	---

Description

Get *all* sources of economic data

Usage

```
fredr_sources(
  ...,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

...	These dots only exist for future extensions and should be empty.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with limit for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating which attribute should be used to order the results. Possible values: "source_id" (default), "name", "realtime_start", "realtime_end".
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/sources](#)

See Also

[fredr_source\(\)](#), [fredr_source_releases\(\)](#)

Examples

```
if (fredr_has_key()) {
  fredr_sources(limit = 20L)
}
```

fredr_source_releases *Get the releases for a source*

Description

Get the releases for a source

Usage

```
fredr_source_releases(
  source_id,
  ...,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

source_id	An integer ID for the data source.
...	These dots only exist for future extensions and should be empty.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with limit for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating which attribute should be used to order the results. Possible values: <ul style="list-style-type: none"> • "release_id" (default) • "name" • "press_release" • "realtime_start" • "realtime_end"
sort_order	A string representing the order of the resulting series. Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object.

API Documentation

[fred/source/releases](#)

See Also

[fredr_sources\(\)](#), [fredr_source\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # Board of Governors  
  fredr_source_releases(source_id = 1L)  
  
  # University of Michigan  
  fredr_source_releases(source_id = 14L, realtime_start = as.Date("1950-01-01"))  
}
```

fredr_tags

Get FRED series tags

Description

Get FRED tags. Optionally, filter results by tag name, tag group, or search text. FRED tags are attributes assigned to a series. By default, all tags are returned, unfiltered, up to the `limit`.

Usage

```
fredr_tags(  
  ...,  
  tag_names = NULL,  
  tag_group_id = NULL,  
  search_text = NULL,  
  limit = NULL,  
  offset = NULL,  
  order_by = NULL,  
  sort_order = NULL,  
  realtime_start = NULL,  
  realtime_end = NULL  
)
```

Arguments

...	These dots only exist for future extensions and should be empty.
tag_names	A semicolon delimited string of tag names to only include in the response. No filtering by tag names by default (i.e. <i>all</i> FRED tags returned).
tag_group_id	A string tag group id to filter tags by type. No filtering by tag group by default. Possible values are: <ul style="list-style-type: none"> • "freq" = Frequency • "gen" = General or Concept • "geo" = Geography • "geot" = Geography Type • "rls" = Release • "seas" = Seasonal Adjustment • "src" = Source
search_text	A string indicating the words to find matching tags with. No filtering by search words by default.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	Order results by values of the specified attribute. Possible values are: <ul style="list-style-type: none"> • "series_count" (default) • "popularity" • "created" • "name" • "group_id"
sort_order	A string representing the order of the resulting series, sorted by the attribute values specified by <code>order_by</code> . Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble containing tags and their descriptions. Data include tag name, group ID, popularity, series count, tag creation date, and additional notes.

API Documentation

[fred/tags](#)

See Also

[fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#), [fredr_docs\(\)](#), [fredr_release_tags\(\)](#),
[fredr_release_related_tags\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#),
[fredr_tags_series\(\)](#), [fredr_related_tags\(\)](#)

Examples

```
if (fredr_has_key() && interactive()) {
# Information for all tags
fredr_tags()

# Information for just the "gdp" and "oecd" tags
fredr_tags(tag_names = "gdp;oecd")

# Information for all tags in the "geo" group
fredr_tags(tag_group_id = "geo")

# Information for tags matching the text "unemployment"
fredr_tags(search_text = "unemployment")
}
```

fredr_tags_series *Find FRED series matching tag names*

Description

Get the series matching tags in the tag_names parameter. Exclude tags in the exclude_tag_names parameter.

Usage

```
fredr_tags_series(
  tag_names,
  ...,
  exclude_tag_names = NULL,
  limit = NULL,
  offset = NULL,
  order_by = NULL,
  sort_order = NULL,
  realtime_start = NULL,
  realtime_end = NULL
)
```

Arguments

tag_names A semicolon delimited string of tag names to find series using.
 ... These dots only exist for future extensions and should be empty.

exclude_tag_names	A semicolon delimited string of tag names that series match <i>none</i> of. No exclusions are done by default.
limit	An integer limit on the maximum number of results to return. Defaults to 1000, the maximum.
offset	An integer used in conjunction with <code>limit</code> for long series. This mimics the idea of <i>pagination</i> to retrieve large amounts of data over multiple calls. Defaults to 0.
order_by	A string indicating which attribute by which to order the results of the query. Possible values include: <ul style="list-style-type: none"> • "series_id" (default) • "title" • "units" • "frequency" • "seasonal_adjustment" • "realtime_start" • "realtime_end" • "last_updated" • "observation_start" • "observation_end" • "popularity" • "group_popularity"
sort_order	A string representing the order of the resulting series, sorted by the attribute values specified by <code>order_by</code> . Possible values are: "asc" (default), and "desc".
realtime_start	A Date indicating the start of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .
realtime_end	A Date indicating the end of the real-time period. Defaults to today's date. For more information, see Real-Time Periods .

Value

A tibble object containing FRED series with tags matching `tag_names` and their descriptions.

API Documentation

[fred/tags/series](#)

See Also

[fredr_category_tags\(\)](#), [fredr_category_related_tags\(\)](#), [fredr_docs\(\)](#), [fredr_release_tags\(\)](#), [fredr_release_related_tags\(\)](#), [fredr_series_search_tags\(\)](#), [fredr_series_search_related_tags\(\)](#), [fredr_tags\(\)](#), [fredr_related_tags\(\)](#)

Examples

```
if (fredr_has_key()) {  
  # All series tagged with "gdp"  
  fredr_tags_series(tag_names = "gdp")  
  # All series tagged with "gdp" and not tagged with "quarterly"  
  fredr_tags_series(  
    tag_names = "gdp",  
    exclude_tag_names = "quarterly"  
  )  
  # Top 100 most popular non-quarterly series matching GDP  
  fredr_tags_series(  
    tag_names = "gdp",  
    exclude_tag_names = "quarterly",  
    order_by = "popularity",  
    limit = 100L  
  )  
}
```

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