

Package ‘fredr’

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Title An R Client for the 'FRED' API

Version 1.0.0

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

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

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

Depends R (>= 3.2.2)

Imports httr, jsonlite, tibble, rlang

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

Description

Get a FRED category

Usage

```
fredr_category(category_id = 0L)
```

Arguments

`category_id` An integer ID for the category. Default is 0 for the root category. *Required parameter.*

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

```
# Root category
fredr_category()
# "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 = 0L, realtime_start = NULL,
  realtime_end = NULL)
```

Arguments

| | |
|-----------------------------|--|
| <code>category_id</code> | An integer ID for the category. Default is 0 for the root category. <i>Required parameter.</i> |
| <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 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**

```
# 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 = 0L, 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> |
| 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

```
# 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 = 0L, tag_names = NULL,
  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. Default is 0 for the root category. <i>Required parameter.</i> |
| <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"). <i>Required parameter.</i> |
| <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: |

- "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 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 | 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 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

```
# 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 = 0L, 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. Default is 0 for the root category. <i>Required parameter.</i> |
| 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" |

| | |
|----------------|--|
| | <ul style="list-style-type: none"> • "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

```
# 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 = 0L, 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. Default is 0 for the root category. <i>Required parameter.</i> |
| 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](https://fred.stlouisfed.org/api/category/tags)

See Also

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

Examples

```
# 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 browser tab.

Usage

```
fredr_docs(endpoint = "base", params = FALSE, debug = FALSE)
```

Arguments

| | |
|----------|---|
| endpoint | A string representing the desired documentation for the exact FRED API endpoint. Default is "base", which will open a link to https://api.stlouisfed.org/docs/fred/ . |
| params | A boolean value. If TRUE, the documentation will be opened at the "Parameters" section. Default is FALSE. |
| debug | A boolean value. If TRUE, the documentation is not opened in a browser and the documentation URL is returned as a string. If FALSE, documentation is opened in a browser and nothing is returned. Default is FALSE. |

API Documentation

FRED API

Examples

```
fredr_docs()
fredr_docs(endpoint = "category")
fredr_docs(endpoint = "series/observations")
fredr_docs(endpoint = "series/observations", params = TRUE)
```

| | |
|-----------------|--|
| fredr_endpoints | <i>List of available FRED API endpoints.</i> |
|-----------------|--|

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 | <i>Get related FRED tags given one or more tags</i> |
|--------------------|---|

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 = NULL, 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. <i>Required parameter.</i> |
| 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 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

```
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 = NULL, realtime_start = NULL,
              realtime_end = NULL)
```

Arguments

| | |
|----------------|--|
| release_id | An integer ID of the release. <i>Required parameter.</i> |
| 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

```
# 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 | <i>Get all releases of economic data</i> |
|----------------|--|

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

| | |
|----------------|---|
| 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

```
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

| | |
|------------------------------------|---|
| 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

```
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 = NULL, 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. <i>Required parameter.</i> |
| 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

```
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 = NULL, tag_names = NULL,
  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. <i>Required parameter.</i> |
| tag_names | A semicolon delimited string of tag names to be related to. <i>Required parameter.</i> |
| 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: |

- "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 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 | 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 order_by. 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

```
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 = NULL, 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. <i>Required parameter.</i> |
| 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" |

| | |
|----------------|--|
| | <ul style="list-style-type: none"> • "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

```
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 = NULL, realtime_start = NULL,  
  realtime_end = NULL)
```

Arguments

`release_id` An integer ID of the release. *Required parameter.*

`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

```
# 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 = NULL, element_id = NULL,  
  include_observation_values = NULL, observation_date = NULL)
```

Arguments

| | |
|----------------------------|---|
| release_id | An integer ID of the release. <i>Required parameter.</i> |
| 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

```
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 = NULL, 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. <i>Required parameter.</i> |
| 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 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

```
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 return is either the response object from [GET](#) or the response parsed as a tibble.

Usage

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

Arguments

| | |
|-----------|---|
| endpoint | A string representing the FRED API endpoint of interest. See fredr_endpoints for a list of endpoint possible values. <i>Required parameter.</i> |
| ... | 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() access to the web documentation for each endpoint function. |
| to_frame | A boolean value indicating whether or not the response should be parsed and formatted as a data frame. If FALSE, a response object is returned and further processing can be done with content . Default is TRUE. |
| print_req | A boolean value indicating whether or not the request should be printed as well. Useful for debugging. Default is FALSE. |

Value

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

API Documentation

[FRED API](#)

Examples

```
fredr_request(  
  endpoint = "series/observations",  
  series_id = "GNPCA",  
  observation_start = "1990-01-01",  
  observation_end = "2000-01-01"  
)  
# Compare with to_frame = TRUE  
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 = NULL, realtime_start = NULL, realtime_end = NULL)
```

Arguments

series_id A string ID for the FRED series. *Required parameter.*

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

```
# 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 = NULL, realtime_start = NULL,  
  realtime_end = NULL)
```

Arguments

| | |
|-----------------------------|--|
| <code>series_id</code> | A string ID for the FRED series. <i>Required parameter.</i> |
| <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

```
# 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 = NULL, 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 = NULL, 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

| | |
|--------------------------------|---|
| <code>series_id</code> | A string ID for the FRED series. <i>Required parameter.</i> |
| <code>observation_start</code> | A Date indicating the start of the observation period. Defaults to 1776-07-04, the earliest available date. |
| <code>observation_end</code> | A Date indicating the end of the observation period. Defaults to 9999-12-31, the latest available date. |
| <code>frequency</code> | 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:

- "avg" for average
- "sum" for sum
- "eop" for end of period value

limit An integer limit on the maximum number of results to return. Defaults to 100000, the maximum.

offset An integer used in conjunction with `limit` for long series. This mimics the idea of *pagination* 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" (default), and "desc".

units A string indicating the data value transformation. Defaults to "lin". Possible values are:

- "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

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](#).

vintage_dates 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 `realtime_start` and `realtime_end`. Defaults to no vintage dates.

`output_type` An integer indicating the output type. Not used unless `realtime_start` is used. Possible values are:

- 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

```
# Observations for "UNRATE" series between 1980 and 2000. Units are in terms
# of change from pervious observation.
fredr(
  series_id = "UNRATE",
  observation_start = as.Date("1980-01-01"),
  observation_end = as.Date("2000-01-01"),
  unit = "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",
  unit = "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 = NULL, realtime_start = NULL,
  realtime_end = NULL)
```

Arguments

| | |
|----------------|--|
| series_id | A string ID for the FRED series. <i>Required parameter.</i> |
| 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

```
# 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 (optional).

Usage

```
fredr_series_search_related_tags(series_search_text = NULL,
  tag_names = NULL, 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. <i>Required parameter.</i> |
| tag_names | A semicolon delimited string of tag names to return. Defaults no filtering by tag names. <i>Required parameter.</i> |
| 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 • "src" = Source |
| tag_search_text | A string to match tag names. Defaults to no filtering by tag name matching. |

| | |
|-----------------------------|---|
| <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>order_by</code> | 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" |
| <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.

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

```
# 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 = NULL, 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. <i>Required parameter.</i> |
| 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

```
# 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 = NULL, 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 = NULL, 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 fredr_series_search_text and fredr_series_search_id . <i>Required parameter.</i> |
| 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 filter_variable attribute to filter by. Possible values depend on the value of filter_variable. 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 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 the attribute to order results by. Defaults to "search_rank" for fredr_series_search_text() and "series_id" for fredr_series_search_id() . Possible values are: <ul style="list-style-type: none"> "search_rank" |

| | |
|----------------|---|
| | <ul style="list-style-type: none"> • "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

```
# 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 = NULL, order_by = NULL, sort_order = NULL,
  realtime_start = NULL, realtime_end = NULL)
```

Arguments

| | |
|----------------|--|
| series_id | A string ID for the FRED series. <i>Required parameter.</i> |
| order_by | A string indicating the attribute by which to order the 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

```
# 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

| | |
|--------------|---|
| 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 limit 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

```
# 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 = NULL, 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. <i>Required parameter.</i> |
| <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

[fredr/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

```
# 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_set_key

Set the FRED API key

Description

Users of the `fredr` package must authenticate with the FRED API by use of an API key. The function `fredr_set_key()` sets the FRED API key as an environment variable for use with the service. For persistence across sessions, see the [Details](#) section.

Usage

```
fredr_set_key(key)
```

Arguments

key A valid FRED API key as a string. Obtain one at the [API Keys](#) page.

Details

fredr_set_key() sets a key as an environment variable for use with the fredr package in the current session. The key can also be set in the .Renvi ron file at the user or project level scope. You can edit the file manually by appending the line FRED_API_KEY = my_api_key, where my_api_key is your actual key (remember to not surround the key in quotes). The function usethis::edit_r_environment() does this safely. Run base::readRenvi ron(".Renvi ron") to set the key in the current session or restart R for it to take effect. The variable will be set in subsequent sessions in the working directory if you set it with project level scope, or everywhere if you set it with user level scope.

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

```
current_key <- Sys.getenv("FRED_API_KEY")
fredr_set_key("abcdefghijklmnopqrstuvwxy123456")
Sys.getenv("FRED_API_KEY")
fredr_set_key(current_key)
Sys.getenv("FRED_API_KEY")
```

| | |
|--------------|--------------------------------------|
| fredr_source | <i>Get a source of economic data</i> |
|--------------|--------------------------------------|

Description

Get a source of economic data

Usage

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

Arguments

| | |
|----------------|--|
| source_id | An integer ID for the data source. <i>Required parameter.</i> |
| 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

```
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

| | |
|--------|--|
| 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

```
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 = NULL, 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. <i>Required parameter.</i> |
| 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

```
# 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 | <i>Get FRED series tags</i> |
|------------|-----------------------------|

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

| | |
|---------------------------|--|
| <code>tag_names</code> | 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). |
| <code>tag_group_id</code> | 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 |
| <code>search_text</code> | A string indicating the words to find matching tags with. No filtering by search words by default. |
| <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>order_by</code> | 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" |
| <code>sort_order</code> | 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

```
# 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 = NULL, 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. <i>Required parameter.</i> |
| 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

```
# 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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