

# Package ‘rdbnomics’

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**Type** Package

**Title** Download DBnomics Data

**Version** 0.6.4

**Description** R access to hundreds of millions data series from DBnomics API  
(<<https://db.nomics.world/>>).

**Depends** R (>= 3.1.0)

**License** AGPL-3

**URL** <https://git.nomics.world/dbnomics/rdbnomics>

**BugReports** <https://git.nomics.world/dbnomics/rdbnomics/-/issues>

**Encoding** UTF-8

**LazyData** true

**Imports** curl, data.table, jsonlite

**Suggests** knitr, rmarkdown, tinytest

**VignetteBuilder** knitr

**RoxygenNote** 7.1.1

**NeedsCompilation** no

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dbnomics	<i>DBnomics ggplot2 theme</i>
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## Description

dbnomics is a simple ggplot2 theme for drawing nicer graphics. We do not recommend to use it. It has been included in the package to avoid errors when reproducing the vignette examples.

## Usage

```
dbnomics(color_palette = "Set1", ...)
```

## Arguments

color_palette	Character string (default "Set1") to change the default color palette. If you want to use the default palette, set it to NULL.
...	Arguments to be passed to the function <code>ggplot2::theme</code> .

## Author(s)

Sebastien Galais

## Examples

```
## Not run:
library(magrittr)
library(ggplot2)

rdb("IMF", "WE0:2019-10", query = "France current account balance percent") %>%
  ggplot(aes(x = period, y = value, color = series_name)) +
  geom_line(size = 1.2) +
  geom_point(size = 2) +
  dbnomics()

## End(Not run)
```

rdb

*Download DBnomics data.***Description**

rdb downloads data series from **DBnomics** using shortcuts like `ids`, `dimensions`, `mask`, `query` or using an `api_link`.

**Usage**

```
rdb(
  provider_code = NULL,
  dataset_code = NULL,
  ids = NULL,
  dimensions = NULL,
  mask = NULL,
  query = NULL,
  api_link = NULL,
  filters = getOption("rdbnomics.filters"),
  use_readLines = getOption("rdbnomics.use_readLines"),
  curl_config = getOption("rdbnomics.curl_config"),
  verbose = getOption("rdbnomics.verbose_warning"),
  ...
)
```

**Arguments**

<code>provider_code</code>	Character string (default NULL). DBnomics code of the provider.
<code>dataset_code</code>	Character string (default NULL). DBnomics code of the dataset.
<code>ids</code>	Character string (default NULL). DBnomics code of one or several series.
<code>dimensions</code>	List or character string (single quoted) (default NULL). DBnomics code of one or several dimensions in the specified provider and dataset. If it is a named list, then the function <code>toJSON</code> (from the package <b>jsonlite</b> ) is applied to generate the json object.
<code>mask</code>	Character string (default NULL). DBnomics code of one or several masks in the specified provider and dataset.
<code>query</code>	Character string (default NULL). A query to filter/select series from a provider's dataset.
<code>api_link</code>	Character string. DBnomics API link of the search. It should starts with <code>http://</code> or <code>https://</code> .
<code>filters</code>	List (default NULL). This argument must be a named list for one filter because the function <code>toJSON</code> of the package <b>jsonlite</b> is used before sending the request to the server. For multiple filters, you have to provide a list of valid filters (see examples). A valid filter is a named list with an element code which is a character string,

	and an element <code>parameters</code> which is a named list with elements <code>frequency</code> and <code>method</code> or a <code>NULL</code> .
<code>use_readLines</code>	Logical (default <code>FALSE</code> ). If <code>TRUE</code> , then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
<code>curl_config</code>	Named list (default <code>NULL</code> ). If not <code>NULL</code> , it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .
<code>verbose</code>	Logical (default <code>FALSE</code> ). Show warnings of the function.
<code>...</code>	Arguments to be passed to the internal function <code>.rdb</code> .

### Details

This function gives you access to hundreds of millions data series from [DBnomics API](#) (documentation about the API can be found [here](#)). The code of each series is given on the [DBnomics website](#).

In the event that only the argument `ids` is provided (and those in the ellipsis `...`), the argument name can be dropped. The character string vector is directly passed to `ids`.

If only the argument `api_link` is provided (and those in the ellipsis `...`), then the argument name can be dropped. The character string vector is directly passed to `api_link`.

In the same way, if only `provider_code`, `dataset_code` and `mask` are provided then the arguments names can be dropped. The last character string is automatically passed to `mask`.

### Value

A `data.table`.

### Author(s)

Sebastien Galais

### Examples

```
## Not run:
## By ids
# Fetch one series from dataset 'Unemployment rate' (ZUTN) of AMECO provider:
df1 <- rdb(ids = "AMECO/ZUTN/EA19.1.0.0.0.ZUTN")
# or when no argument names are given (provider_code -> ids)
df1 <- rdb("AMECO/ZUTN/EA19.1.0.0.0.ZUTN")

# Fetch two series from dataset 'Unemployment rate' (ZUTN) of AMECO provider:
df2 <- rdb(ids = c("AMECO/ZUTN/EA19.1.0.0.0.ZUTN", "AMECO/ZUTN/DNK.1.0.0.0.ZUTN"))

# Fetch two series from different datasets of different providers:
df3 <- rdb(ids = c("AMECO/ZUTN/EA19.1.0.0.0.ZUTN", "IMF/BOP/A.FR.BCA_BP6_EUR"))
```

```

## By dimensions
# Fetch one value of one dimension from dataset 'Unemployment rate' (ZUTN) of AMECO provider:
df1 <- rdb("AMECO", "ZUTN", dimensions = list(geo = "ea12"))
# or
df1 <- rdb("AMECO", "ZUTN", dimensions = '{"geo":["ea12]}')

# Fetch two values of one dimension from dataset 'Unemployment rate' (ZUTN) of AMECO provider:
df2 <- rdb("AMECO", "ZUTN", dimensions = list(geo = c("ea12", "dnk")))
# or
df2 <- rdb("AMECO", "ZUTN", dimensions = '{"geo":["ea12","dnk]}')

# Fetch several values of several dimensions from dataset 'Doing business' (DB) of World Bank:
dim <- list(
  country = c("DZ", "PE"),
  indicator = c("ENF.CONT.COEN.COST.ZS", "IC.REG.COST.PC.FE.ZS")
)
df3 <- rdb("WB", "DB", dimensions = dim)
# or
dim <- paste0(
  '{"country":["DZ","PE"],',
  '"indicator":["ENF.CONT.COEN.COST.ZS","IC.REG.COST.PC.FE.ZS]}'
)
df3 <- rdb("WB", "DB", dimensions = dim)

## By mask
# Fetch one series from dataset 'Balance of Payments' (BOP) of IMF:
df1 <- rdb("IMF", "BOP", mask = "A.FR.BCA_BP6_EUR")
# or when no argument names are given except provider_code and dataset_code (ids -> mask)
df1 <- rdb("IMF", "BOP", "A.FR.BCA_BP6_EUR")

# Fetch two series from dataset 'Balance of Payments' (BOP) of IMF:
df2 <- rdb("IMF", "BOP", mask = "A.FR+ES.BCA_BP6_EUR")

# Fetch all series along one dimension from dataset 'Balance of Payments' (BOP) of IMF:
df3 <- rdb("IMF", "BOP", mask = "A..BCA_BP6_EUR")

# Fetch series along multiple dimensions from dataset 'Balance of Payments' (BOP) of IMF:
df4 <- rdb("IMF", "BOP", mask = "A.FR.BCA_BP6_EUR+IA_BP6_EUR")

## By query
# Fetch one series from dataset 'WEO by countries (2019-10 release)' (WEO:2019-10) from IMF :
df1 <- rdb("IMF", "WEO:2019-10", query = "France current account balance percent")
# Fetch series from dataset 'WEO by countries (2019-10 release)' (WEO:2019-10) from IMF :
df2 <- rdb("IMF", "WEO:2019-10", query = "current account balance percent")

## By api_link
# Fetch two series from different datasets of different providers :
df1 <- rdb(
  api_link = paste0(

```

```

    "https://api.db.nomics.world/v22/",
    "series?observations=1&series_ids=AMECO/ZUTN/EA19.1.0.0.0.ZUTN,IMF/CPI/A.AT.PCPIT_IX"
  )
)

# Fetch one series from the dataset 'Doing Business' of WB provider :
df2 <- rdb(
  api_link = paste0(
    "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
    "indicator%22%3A%5B%22IC.REG.PROC.FE.N0%22%5D%7D&q=Doing%20Business",
    "&observations=1&format=json&align_periods=1&offset=0&facets=0"
  )
)
# or when no argument names are given (provider_code -> api_link)
df1 <- rdb(
  paste0(
    "https://api.db.nomics.world/v22/",
    "series?observations=1&series_ids=AMECO/ZUTN/EA19.1.0.0.0.ZUTN,IMF/CPI/A.AT.PCPIT_IX"
  )
)

## Use a specific proxy to fetch the data
# Fetch one series from dataset 'Unemployment rate' (ZUTN) of AMECO provider :
h <- list(
  proxy = "<proxy>",
  proxyport = <port>,
  proxyusername = "<username>",
  proxypassword = "<password>"
)
options(rdbnomics.curl_config = h)
df1 <- rdb(ids = "AMECO/ZUTN/EA19.1.0.0.0.ZUTN")
# or to use once
options(rdbnomics.curl_config = NULL)
df1 <- rdb(ids = "AMECO/ZUTN/EA19.1.0.0.0.ZUTN", curl_config = h)

## Use R default connection to avoid a proxy failure (in some cases)
# Fetch one series from dataset 'Unemployment rate' (ZUTN) of AMECO provider :
options(rdbnomics.use_readLines = TRUE)
df1 <- rdb(ids = "AMECO/ZUTN/EA19.1.0.0.0.ZUTN")
# or to use once
df1 <- rdb(ids = "AMECO/ZUTN/EA19.1.0.0.0.ZUTN", use_readLines = TRUE)

## Apply filter(s) to the series
# One filter
df1 <- rdb(
  ids = c("IMF/WE0:2019-10/ABW.BCA.us_dollars", "IMF/WE0:2019-10/ABW.BCA_NGDPD.pcent_gdp"),
  filters = list(
    code = "interpolate",
    parameters = list(frequency = "daily", method = "spline")
  )
)

```

```
)  
  
# Two filters  
df1 <- rdb(  
  ids = c("IMF/WEO:2019-10/ABW.BCA.us_dollars", "IMF/WEO:2019-10/ABW.BCA_NGDPD.pcent_gdp"),  
  filters = list(  
    list(  
      code = "interpolate",  
      parameters = list(frequency = "quarterly", method = "spline")  
    ),  
    list(  
      code = "aggregate",  
      parameters = list(frequency = "annual", method = "average")  
    )  
  )  
)  
  
## End(Not run)
```

---

rdbnomics

*Package rdbnomics*

---

### Description

DBnomics R client (<<https://db.nomics.world/>>).

---

rdb\_by\_api\_link

*Download DBnomics data using API link (deprecated).*

---

### Description

rdb\_by\_api\_link downloads data series from **DBnomics**.

### Usage

```
rdb_by_api_link(  
  api_link,  
  use_readLines = getOption("rdbnomics.use_readLines"),  
  curl_config = getOption("rdbnomics.curl_config"),  
  filters = getOption("rdbnomics.filters")  
)
```

## Arguments

<code>api_link</code>	Character string. DBnomics API link of the search.
<code>use_readLines</code>	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
<code>curl_config</code>	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .
<code>filters</code>	List (default NULL). This argument must be a named list for one filter because the function <code>toJSON</code> of the package <b>jsonlite</b> is used before sending the request to the server. For multiple filters, you have to provide a list of valid filters (see examples). A valid filter is a named list with an element <code>code</code> which is a character string, and an element <code>parameters</code> which is a named list with elements <code>frequency</code> and <code>method</code> or a NULL.

## Details

This function gives you access to hundreds of millions data series from [DBnomics API](#) (documentation about the API can be found [here](#)). The API link is given on the [DBnomics website](#).

## Value

A data.table.

## Author(s)

Sebastien Galais

## See Also

[rdb](#)

## Examples

```
## Not run:
# Fetch two series from different datasets of different providers :
df1 <- rdb_by_api_link(
  paste0(
    "https://api.db.nomics.world/v22/",
    "series?observations=1&series_ids=AMECO/ZUTN/EA19.1.0.0.0.ZUTN,IMF/CPI/A.AT.PCPIT_IX"
  )
)

# Fetch one series from the dataset 'Doing Business' of WB provider :
df2 <- rdb_by_api_link(
```



```

paste0(
  "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
  "indicator%22%3A%5B%22IC.REG.PROC.FE.NO%22%5D%7D&q=Doing%20Business",
  "&observations=1&format=json&align_periods=1&offset=0&facets=0"
)
)

## Use a specific proxy to fetch the data
# Fetch one series from the dataset 'Doing Business' of WB provider :
h <- list(
  proxy = "<proxy>",
  proxyport = <port>,
  proxyusername = "<username>",
  proxypassword = "<password>"
)
options(rdbnomics.curl_config = h)
df2 <- rdb_by_api_link(
  paste0(
    "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
    "indicator%22%3A%5B%22IC.REG.PROC.FE.NO%22%5D%7D&q=Doing%20Business",
    "&observations=1&format=json&align_periods=1&offset=0&facets=0"
  )
)
# or to use once
df2 <- rdb_by_api_link(
  paste0(
    "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
    "indicator%22%3A%5B%22IC.REG.PROC.FE.NO%22%5D%7D&q=Doing%20Business",
    "&observations=1&format=json&align_periods=1&offset=0&facets=0"
  ),
  curl_config = h
)

## Use R default connection to avoid a proxy failure (in some cases)
# Fetch one series from the dataset 'Doing Business' of WB provider :
options(rdbnomics.use_readLines = TRUE)
df2 <- rdb_by_api_link(
  paste0(
    "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
    "indicator%22%3A%5B%22IC.REG.PROC.FE.NO%22%5D%7D&q=Doing%20Business",
    "&observations=1&format=json&align_periods=1&offset=0&facets=0"
  )
)
# or to use once
df2 <- rdb_by_api_link(
  paste0(
    "https://api.db.nomics.world/v22/series/WB/DB?dimensions=%7B%22",
    "indicator%22%3A%5B%22IC.REG.PROC.FE.NO%22%5D%7D&q=Doing%20Business",
    "&observations=1&format=json&align_periods=1&offset=0&facets=0"
  ),
  use_readLines = TRUE
)

```

```

)

## Apply filter(s) to the series
# One filter
df3 <- rdb_by_api_link(
  "https://api.db.nomics.world/v22/series/IMF/WEO:2019-10/ABW.BCA?observations=1",
  filters = list(
    code = "interpolate",
    parameters = list(frequency = "daily", method = "spline")
  )
)

# Two filters
df3 <- rdb_by_api_link(
  "https://api.db.nomics.world/v22/series/IMF/WEO:2019-10/ABW.BCA?observations=1",
  filters = list(
    list(
      code = "interpolate",
      parameters = list(frequency = "quarterly", method = "spline")
    ),
    list(
      code = "aggregate",
      parameters = list(frequency = "annual", method = "average")
    )
  )
)

## End(Not run)

```

---

rdb\_datasets

*Download list of datasets for DBnomics providers.*


---

## Description

rdb\_datasets downloads the list of available datasets for a selection of providers (or all of them) from [DBnomics](#).

## Usage

```

rdb_datasets(
  provider_code = NULL,
  use_readLines = getOption("rdbnomics.use_readLines"),
  curl_config = getOption("rdbnomics.curl_config"),
  simplify = FALSE,
  ...
)

```

**Arguments**

provider_code	Character string (default NULL). DBnomics code of one or multiple providers. If NULL, the providers are firstly dowloaded with the function <a href="#">rdb_providers</a> and then the available datasets are requested.
use_readLines	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
curl_config	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .
simplify	Logical (default FALSE). If TRUE, when the datasets are requested for only one provider then a <code>data.table</code> is returned, not a list of <code>data.tables</code> .
...	Additional arguments.

**Details**

By default, the function returns a named list of `data.tables` containing the datasets of the providers from [DBnomics](#).

**Value**

A named list of `data.tables` or a `data.table`.

**Author(s)**

Sebastien Galais

**See Also**

[rdb\\_providers](#), [rdb\\_last\\_updates](#), [rdb\\_dimensions](#), [rdb\\_series](#)

**Examples**

```
## Not run:
rdb_datasets(provider_code = "IMF")

rdb_datasets(provider_code = "IMF", simplify = TRUE)

rdb_datasets(provider_code = c("IMF", "BDF"))

options(rdbnomics.progress_bar_datasets = TRUE)
rdb_datasets()
options(rdbnomics.progress_bar_datasets = FALSE)

rdb_datasets(provider_code = "IMF", use_readLines = TRUE)
```

```

rdb_datasets(
  provider_code = "IMF",
  curl_config = list(proxy = "<proxy>", proxyport = <port>)
)

## End(Not run)

```

---

rdb\_dimensions      *Download list of dimensions for datasets of DBnomics providers.*

---

## Description

rdb\_dimensions downloads the list of dimensions (if they exist) for available datasets of a selection of providers from [DBnomics](#).

## Usage

```

rdb_dimensions(
  provider_code = NULL,
  dataset_code = NULL,
  use_readLines = getOption("rdbnomics.use_readLines"),
  curl_config = getOption("rdbnomics.curl_config"),
  simplify = FALSE,
  ...
)

```

## Arguments

provider_code	Character string (default NULL). DBnomics code of one or multiple providers. If NULL, the providers are firstly dowloaded with the function <a href="#">rdb_providers</a> and then the datasets are requested.
dataset_code	Character string (default NULL). DBnomics code of one or multiple datasets of a provider. If NULL, the datasets codes are downloaded with the function <a href="#">rdb_datasets</a> and then the dimensions are requested.
use_readLines	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
curl_config	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .
simplify	Logical (default FALSE). If TRUE, when the dimensions are requested for only one provider and one dataset then a named list of <code>data.tables</code> is returned, not a nested named list of <code>data.tables</code> .
...	Additional arguments.

**Details**

By default, the function returns a nested named list of `data.tables` containing the dimensions of datasets for providers from **DBnomics**.

**Value**

A nested named list of `data.tables` or a named list of `data.tables`.

**Author(s)**

Sebastien Galais

**See Also**

[rdb\\_providers](#), [rdb\\_last\\_updates](#), [rdb\\_datasets](#), [rdb\\_series](#)

**Examples**

```
## Not run:
rdb_dimensions(provider_code = "IMF", dataset_code = "WEO:2019-10")

rdb_dimensions(provider_code = "IMF", dataset_code = "WEO:2019-10", simplify = TRUE)

rdb_dimensions(provider_code = "IMF")

# /\ It is very long !
options(rdbnomics.progress_bar_dimensions = TRUE)
rdb_dimensions()
options(rdbnomics.progress_bar_dimensions = FALSE)

rdb_dimensions(
  provider_code = "IMF", dataset_code = "WEO:2019-10",
  use_readLines = TRUE
)

rdb_dimensions(
  provider_code = "IMF", dataset_code = "WEO:2019-10",
  curl_config = list(proxy = "<proxy>", proxyport = <port>)
)

## End(Not run)
```

---

rdb\_last\_updates

*Download informations about the last DBnomics updates.*

---

**Description**

`rdb_last_updates` downloads informations about the last updates from **DBnomics**.

**Usage**

```
rdb_last_updates(
  all = FALSE,
  use_readLines = getOption("rdbnomics.use_readLines"),
  curl_config = getOption("rdbnomics.curl_config")
)
```

**Arguments**

<code>all</code>	Logical (default FALSE). If TRUE, then the full dataset of the last updates is retrieved.
<code>use_readLines</code>	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
<code>curl_config</code>	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .

**Details**

By default, the function returns a `data.table` containing the last 100 updates from **DBnomics** with additional informations.

**Value**

A `data.table`.

**Author(s)**

Sebastien Galais

**See Also**

[rdb\\_providers](#), [rdb\\_datasets](#), [rdb\\_dimensions](#)

**Examples**

```
## Not run:
rdb_last_updates()

rdb_last_updates(all = TRUE)

rdb_last_updates(use_readLines = TRUE)

rdb_last_updates(curl_config = list(proxy = "<proxy>", proxyport = <port>))

## End(Not run)
```

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rdb_providers	<i>Download list of DBnomics providers.</i>
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### Description

rdb\_providers downloads the list of providers from [DBnomics](#).

### Usage

```
rdb_providers(  
  code = FALSE,  
  use_readLines = getOption("rdbnomics.use_readLines"),  
  curl_config = getOption("rdbnomics.curl_config")  
)
```

### Arguments

code	Logical (default FALSE). If TRUE, then only the providers are returned in a vector.
use_readLines	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
curl_config	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .

### Details

By default, the function returns a `data.table` containing the list of providers from [DBnomics](#) with additional informations such as the region, the website, etc.

### Value

A `data.table` or a vector.

### Author(s)

Sebastien Galais

### See Also

[rdb\\_last\\_updates](#), [rdb\\_datasets](#), [rdb\\_dimensions](#), [rdb\\_series](#)

## Examples

```
## Not run:
rdb_providers()

rdb_providers(code = TRUE)

rdb_providers(use_readLines = TRUE)

rdb_providers(curl_config = list(proxy = "<proxy>", proxyport = <port>))

## End(Not run)
```

---

rdb_rename_xts	<i>Rename the xts object columns</i>
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---

## Description

In the xts object returned by the function `rdb_to_xts`, the series codes are used as column names. If you prefer the series names (or apply a function to them), the function `rdb_rename_xts` is here for that.

## Usage

```
rdb_rename_xts(x, fun = NULL, ...)
```

## Arguments

<code>x</code>	xts object. The xts object returned by the function <code>rdb_to_xts</code> .
<code>fun</code>	function (default NULL). The function to apply to the column names.
<code>...</code>	Arguments for the function <code>fun</code> .

## Value

A xts object.

## Author(s)

Sebastien Galais

## See Also

[rdb](#), [rdb\\_to\\_xts](#)



## Examples

```
## Not run:
library(xts)
library(data.table)
library(rdbnomics)

df <- rdb("IMF", "BOP", mask = "A.FR+ES.BCA_BP6_EUR")
df <- rdb_to_xts(df)
rdb_rename_xts(df)

## End(Not run)
```

---

rdb\_series

*Download list of series for datasets of DBnomics providers.*

---

## Description

rdb\_series downloads the list of series for available datasets of a selection of providers from [DBnomics](#).

! \ We warn the user that this function can be (very) long to execute. We remind that DBnomics requests data from 63 providers to retrieve 21675 datasets for a total of approximately 720 millions series.

## Usage

```
rdb_series(
  provider_code = NULL,
  dataset_code = NULL,
  dimensions = NULL,
  query = NULL,
  use_readLines = getOption("rdbnomics.use_readLines"),
  curl_config = getOption("rdbnomics.curl_config"),
  simplify = FALSE,
  verbose = FALSE,
  ...
)
```

## Arguments

- provider\_code** Character string (default NULL). DBnomics code of one or multiple providers. If NULL, the providers are firstly downloaded with the function [rdb\\_providers](#) and then the datasets are requested.
- dataset\_code** Character string (default NULL). DBnomics code of one or multiple datasets of a provider. If NULL, the datasets codes are downloaded with the function [rdb\\_datasets](#) and then the series are requested.

dimensions	List or character string (single quoted) (default NULL). DBnomics code of one or several dimensions in the specified provider and dataset. If it is a named list, then the function <code>toJSON</code> (from the package <b>jsonlite</b> ) is applied to generate the json object.
query	Character string (default NULL). A query to filter/select series from a provider's dataset.
use_readLines	Logical (default FALSE). If TRUE, then the data are requested and read with the base function <code>readLines</code> i.e. through the default R internet connection. This can be used to get round the error <code>Could not resolve host: api.db.nomics.world</code> .
curl_config	Named list (default NULL). If not NULL, it is used to configure a proxy connection. This configuration is passed to the function <code>curl_fetch_memory</code> of the package <b>curl</b> . A temporary <code>curl_handle</code> object is created internally with arguments equal to the provided list in <code>curl_config</code> . For <code>curl_fetch_memory</code> arguments see <a href="#">curl_fetch</a> . For available curl options see <a href="#">curl_options</a> , <code>names(curl_options())</code> and <a href="#">libcurl</a> .
simplify	Logical (default FALSE). If TRUE, when the series are requested for only one provider and one dataset then a <code>data.table</code> is returned, not a nested named list of <code>data.tables</code> .
verbose	Logical (default FALSE). Show number of series per datasets and providers.
...	Additional arguments.

### Details

By default, the function returns a nested named list of `data.tables` containing the series of datasets for providers from **DBnomics**.

### Value

A nested named list of `data.tables` or a `data.table`.

### Author(s)

Sebastien Galais

### See Also

[rdb\\_providers](#), [rdb\\_last\\_updates](#), [rdb\\_datasets](#), [rdb\\_dimensions](#)

### Examples

```
## Not run:
rdb_series(provider_code = "IMF", dataset_code = "WEO:2019-10")

## With dimensions
rdb_series("IMF", "WEO:2019-10", dimensions = list(`weo-country` = "AGO"))
rdb_series("IMF", "WEO:2019-10", dimensions = list(`weo-subject` = "NGDP_RPCH"), simplify = TRUE)

## With query
```

```

rdb_series("IMF", "WEO:2019-10", query = "ARE")
rdb_series("IMF", c("WEO:2019-10", "WEOAGG:2019-10"), query = "NGDP_RPCH")

rdb_series(provider_code = "IMF", verbose = TRUE)

options(rdbnomics.progress_bar_series = TRUE)
rdb_series(provider_code = "IMF", dataset_code = "WEO:2019-10")
options(rdbnomics.progress_bar_series = FALSE)

rdb_series(
  provider_code = "IMF", dataset_code = "WEO:2019-10",
  use_readLines = TRUE
)

rdb_series(
  provider_code = "IMF", dataset_code = "WEO:2019-10",
  curl_config = list(proxy = "<proxy>", proxyport = <port>)
)

## End(Not run)

```

---

rdb\_to\_xts

*Transform the data.table object into a xts object*


---

### Description

For some analysis, it is more convenient to have a xts object instead of a data.table object.

### Usage

```

rdb_to_xts(
  x,
  needed_columns = c("period", "series_code", "series_name", "value"),
  series_columns = c("series_code", "series_name")
)

```

### Arguments

x	data.table. The data.table returned by the rdb function.
needed_columns	Vector of character strings (default c("period", "series_code", "series_name", "value")). Vector of column names which are needed to transform the data.table into a xts object.
series_columns	Vector of character strings (default c("series_code", "series_name")). Vector of series column names.

### Value

A xts object.

**Author(s)**

Sebastien Galais

**See Also**

[rdb](#), [rdb\\_rename\\_xts](#)

**Examples**

```
## Not run:  
library(xts)  
library(data.table)  
library(rdbnomics)  
  
df <- rdb("IMF", "BOP", mask = "A.FR+ES.BCA_BP6_EUR")  
rdb_to_xts(df)  
  
## End(Not run)
```

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