

Package ‘INEbaseR’

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(Instituto Nacional de Estadística) API

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Description R package for obtaining and analyzing open data from INE (Instituto Nacional de Estadística) API.

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R topics documented:

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| | |
|----------------------------|------------------------------------|
| get_data_metadatooperation | <i>Get data metadata-operation</i> |
|----------------------------|------------------------------------|

Description

This function returns a data frame with latest n series data by crossing metadata from an id or code

Usage

```
get_data_metadatooperation(code, query = NULL, p = 1, nult = 1,
  det = 0, tip = NA, ioe = FALSE, lang = "ES")
```

Arguments

| | |
|-------|---|
| code | table identification |
| query | string separated by AND with syntax variable = value using natural language |
| p | periodicity |
| nult | last n values |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| tip | tip = AM to obtain the metadata (crossing variables-values) of the series and a friendly output. |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Examples

```
get_data_metadatooperation("IPC", query = "Provincias = Madrid AND Tipo de dato = Variacion mensual AND Grupos B
```

| | |
|----------------|-----------------------|
| get_data_serie | <i>Get data serie</i> |
|----------------|-----------------------|

Description

This function returns a data frame with data of a serie from an id or/and from a date or date range

Usage

```
get_data_serie(code, date_start = NA, date_end = NA, nult = 0,
  det = 0, lang = "ES")
```

Arguments

| | |
|------------|---|
| code | operation identification |
| date_start | start date in format (string) YYYY-MM-DD |
| date_end | end date in format (string) YYYY-MM-DD |
| nult | last n values |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_data_serie("IPC206449", nult = 1) # Get the latest data of a series
get_data_serie("IPC206449", nult = 5) # Get the \code{n} last data of a series
get_data_serie("IPC206449", "2013-01-01", "2016-01-01") # Get data of a series between two dates
get_data_serie("IPC206449", "2010-01-01") # Get data from a series from a date
```

| | |
|----------------|-----------------------|
| get_data_table | <i>Get data table</i> |
|----------------|-----------------------|

Description

This function returns a data frame with latest n data of a table from an id or code

Usage

```
get_data_table(id, nult = 0, det = 0, tip = NA, lang = "ES")
```

Arguments

| | |
|------|---|
| id | table identification |
| nult | last n values |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| tip | tip = AM to obtain the metadata (crossing variables-values) of the series and a friendly output. |
| lang | language used to obtain information |

Examples

```
get_data_table(22350, 4)
```

| | |
|---------------|----------------------|
| get_frequency | <i>Get frequency</i> |
|---------------|----------------------|

Description

This function return the periodicity (number) of a time serie

Usage

```
get_frequency(periodicity, data = NULL)
```

Arguments

| | |
|-------------|---------------------------------------|
| periodicity | string with a periodicity |
| data | result of get_data_serie()\$Data call |

Examples

```
get_frequency("Mensual")
get_frequency("Trimestral")
get_frequency("Anual")
```

| | |
|---------------|----------------------|
| get_operation | <i>Get operation</i> |
|---------------|----------------------|

Description

This function returns a data frame with all available statistical operations from an id or code

Usage

```
get_operation(code, ioe = FALSE, lang = "ES")
```

Arguments

| | |
|------|---|
| code | operation identification |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_operation(25)
get_operation("IPC")
get_operation(30138, ioe = TRUE)
```

| | |
|--------------------|-----------------------------|
| get_operations_all | <i>Get operations (all)</i> |
|--------------------|-----------------------------|

Description

This function returns a data frame with all available statistical operations

Usage

```
get_operations_all(lang = "ES")
```

Arguments

| | |
|------|-------------------------------------|
| lang | language used to obtain information |
|------|-------------------------------------|

Examples

```
get_operations_all()
```

| | |
|------------------|-------------------------|
| get_publications | <i>Get publications</i> |
|------------------|-------------------------|

Description

This function returns a data frame with all available publications from an id or code

Usage

```
get_publications(det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_publications()
```

```
get_publications_date
```

Get publications date

Description

This function returns a data frame with all publication date of a publication from an id or code

Usage

```
get_publications_date(code, det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| code | publication identification |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_publications_date(8)
```

```
get_publications_operation
```

Get publications operation

Description

This function returns a data frame with publications of an operation from an id or code

Usage

```
get_publications_operation(code, ioe = FALSE, det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| code | operation identification |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_publications_operation(25)
get_publications_operation(30138, ioe = TRUE)
```

`get_serie`*Get serie*

Description

This function returns a data frame with a serie from an id or code

Usage

```
get_serie(code, det = 0, tip = NA, lang = "ES")
```

Arguments

| | |
|-------------------|--|
| <code>code</code> | serie identification |
| <code>det</code> | <code>det = 2</code> to see two levels of depth, specifically to access the <code>PubFechaAct</code> object, <code>det = 0</code> by default |
| <code>tip</code> | <code>tip = M</code> to obtain the metadata (crossing variables-values) of the series. |
| <code>lang</code> | language used to obtain information |

Examples

```
get_serie("IPC206449")  
get_serie("IPC206449", det = 2, tip = "M")
```

`get_series_metadataoperation`*Get series metadata operation*

Description

This function returns a data frame with all series by metadata crossing from an id or code

Usage

```
get_series_metadataoperation(code, query = NULL, p = NULL, det = 0,  
  tip = NA, ioe = FALSE, lang = "ES")
```

Arguments

| | |
|--------------------|--|
| <code>code</code> | operation identification |
| <code>query</code> | string separated by AND with syntax <code>variable = value</code> using natural language |
| <code>p</code> | periodicity, <code>p = 1</code> by default |
| <code>det</code> | <code>det = 2</code> to see two levels of depth, specifically to access the <code>PubFechaAct</code> object, <code>det = 0</code> by default |
| <code>tip</code> | <code>tip = M</code> to obtain the metadata (crossing variables-values) of the series. |
| <code>ioe</code> | TRUE if code is in format I030138, and FALSE by default |
| <code>lang</code> | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas) Código identificativo de la operación (IOE30138 /IPC/ 25) y códigos identificativos de las variables y valores: Provincias (FK_VARIABLE=115) = "Madrid" (FK_VALOR=29) > g1=115:29 Tipo de dato (FK_VARIABLE=3) = "Variación mensual" (FK_VALOR=84) > g2=3:84 Grupos ECOICOP (FK_VARIABLE=762) = "Todos los grupos ECOICOP" (FK_VALOR=null) > g3=762: Serie mensual (FK_PERIODICIDAD=1) > p=1 (Ver PUBLICACIONES_OPERACION)

Examples

```
get_series_metadataoperation("IPC", query = "Provincias = Madrid AND Tipo de dato = Variación mensual AND Grupo
```

```
get_series_operation    Get series operation
```

Description

This function returns a data frame with all series of an operation from an id or code

Usage

```
get_series_operation(code, det = 0, tip = NA, pagination = FALSE,
  page = NA, page_start = NA, page_end = NA, ioe = FALSE,
  lang = "ES", cache = TRUE, benchmark = FALSE)
```

Arguments

| | |
|------------|---|
| code | operation identification |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| tip | tip = M to obtain the metadata (crossing variables-values) of the series. |
| pagination | TRUE to obtain data page by page and FALSE by default. |
| page | page = 1 to obtain data of an specific page (to use this, pagination = FALSE). |
| page_start | page_start = 1 start page range to obtain data (to use this, pagination = TRUE). |
| page_end | page_end = 2 end page range to obtain data (to use this, pagination = TRUE). |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |
| cache | used to load data from local cache instead API, cache = FALSE by default. |
| benchmark | used to measure the performance of the system, benchmark = FALSE by default. |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```

get_series_operation(25)
get_series_operation(25, 2, "M")
get_series_operation(30138, ioe = TRUE)
get_series_operation(30138, 2, "M", ioe = TRUE)
get_series_operation("IPC", det = 2, tip = "M")
get_series_operation(25, pagination = FALSE, page = 1, cache = FALSE)
get_series_operation(25, pagination = TRUE, page_start = 1, page_end = 2, cache = FALSE)

```

| | |
|------------------|-------------------------|
| get_series_table | <i>Get series table</i> |
|------------------|-------------------------|

Description

This function returns a data frame with all series of a table from an id or code

Usage

```
get_series_table(code, det = 0, tip = NA, lang = "ES")
```

Arguments

| | |
|------|---|
| code | table identification |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| tip | tip = M to obtain the metadata (crossing variables-values) of the series. |
| lang | language used to obtain information |

Examples

```

get_series_table(22350)
get_series_table(22350, 2, "M")

```

| | |
|-------------------|--------------------------|
| get_series_values | <i>Get series values</i> |
|-------------------|--------------------------|

Description

This function returns a data frame with the metadata that defines a series from an id or code

Usage

```
get_series_values(code, det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| code | serie identification |
| det | det = 1 to see the detail of the variable to which it belongs, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_series_values("IPC206449")
get_series_values("IPC206449", 1)
```

| | |
|------------------|-------------------------|
| get_tables_group | <i>Get tables group</i> |
|------------------|-------------------------|

Description

This function returns a data frame with a combination of variables and values that define a table from an id or code

Usage

```
get_tables_group(id, lang = "ES")
```

Arguments

| | |
|------|-------------------------------------|
| id | table identification |
| lang | language used to obtain information |

Examples

```
get_tables_group(22350)
```

| | |
|-------------------------|--------------------------------|
| get_tables_group_values | <i>Get tables group values</i> |
|-------------------------|--------------------------------|

Description

This function returns a data frame with a combination of variables and values that define a table from an id or code

Usage

```
get_tables_group_values(id, grp, det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| id | table identification |
| grp | group identification |
| det | det = 1 to see the detail of the variable to which it belongs, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_tables_group_values(22350, 81497)
get_tables_group_values(22350, 81497, 1)
```

get_tables_operation *Get tables operation*

Description

This function returns a data frame with all tables of an operation with geographic information from an id or code

Usage

```
get_tables_operation(code, det = 0, geo = 0, tip = NA, ioe = FALSE,
  lang = "ES")
```

Arguments

| | |
|------|---|
| code | operation identification |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| geo | geo = 1 to access only tables with geographic content, geo = 0 by default |
| tip | tip = A to view as friendly, specifically the view the field ultima_modificacion |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_tables_operation(25)
get_tables_operation(25, 2, 1, tip = "A")
get_tables_operation(30138, ioe = TRUE, 2, 1, tip = "A")
```

get_values_all *Get values (all)*

Description

This function returns a data frame with all values from a variable

Usage

```
get_values_all(id, det = 0, lang = "ES")
```

Arguments

| | |
|------|---|
| id | operation identification |
| det | det = 1 to see the detail of the variable to which it belongs, det = 0 by default |
| lang | language used to obtain information |

Examples

```
get_values_all(115)
get_values_all(115, 1)
```

| | |
|------------------------------|---|
| get_values_variableoperation | |
| | <i>Get values from variable operation</i> |

Description

This function returns a data frame with all values from a variable to an operation

Usage

```
get_values_variableoperation(id, op, det = 0, ioe = FALSE,
                             lang = "ES")
```

Arguments

| | |
|------|---|
| id | variable identification |
| op | operation identification |
| det | det = 1 to see the detail of the variable to which it belongs, det = 0 by default |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_values_variableoperation(762, 25)
get_values_variableoperation(762, 25, 1)
get_values_variableoperation(762, 30138, ioe = TRUE)
get_values_variableoperation(762, 30138, ioe = TRUE, 1)
```

| | |
|-------------------|----------------------------|
| get_variables_all | <i>Get variables (all)</i> |
|-------------------|----------------------------|

Description

This function returns a data frame with all system variables

Usage

```
get_variables_all(lang = "ES")
```

Arguments

| | |
|------|-------------------------------------|
| lang | language used to obtain information |
|------|-------------------------------------|

Examples

```
get_variables_all()
```

```
get_variables_operation
```

Get variable operation

Description

This function returns a data frame with system variables of an operation from an id or code

Usage

```
get_variables_operation(code, ioe = FALSE, lang = "ES")
```

Arguments

| | |
|------|---|
| code | operation identification |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_variables_operation(25)
get_variables_operation("IPC")
get_variables_operation(30138, ioe = TRUE)
```

```
get_var_values_operation
```

Get variable values operation

Description

This function returns a data frame with all values and variables of an operation from an id or code

Usage

```
get_var_values_operation(op, ioe = FALSE, lang = "ES")
```

Arguments

| | |
|------|---|
| op | operation identification |
| ioe | TRUE if code is in format IO30138, and FALSE by default |
| lang | language used to obtain information |

Details

Numeric code id Alphabetic code IPC IOE code (Inventario de Operaciones Estadísticas)

Examples

```
get_var_values_operation(25)
get_var_values_operation("IPC")
get_var_values_operation(30138, ioe = TRUE)
```

| | |
|-------------------|--------------------------|
| highcharts_series | <i>Highcharts series</i> |
|-------------------|--------------------------|

Description

This function draws a highchart with data of a series from an id and/or from a date or date range

Usage

```
highcharts_series(code, date_start = NA, date_end = NA, nult = 0,
  det = 0, lang = "ES")
```

Arguments

| | |
|------------|---|
| code | identification code of a serie (e.g. "IPC206449") |
| date_start | start date in format (string) YYYY-MM-DD |
| date_end | end date in format (string) YYYY-MM-DD |
| nult | last n values |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| lang | language used to obtain information |

Examples

```
highcharts_series("IPC206449", nult = 1) # Get the latest data of a series
highcharts_series("IPC206449", nult = 5) # Get the \code{n} last data of a series
highcharts_series("IPC206449", "2013-01-01", "2016-01-01") # Get data of a series between two dates
highcharts_series("IPC206449", "2010-01-01") # Get data from a series from a date
```

| | |
|-------------|--------------------|
| plot_series | <i>Plot series</i> |
|-------------|--------------------|

Description

This function draws a plot with data of a series from an id and/or from a date or date range

Usage

```
plot_series(code, date_start = NA, date_end = NA, nult = 0,
            det = 0, type = NA, lang = "ES")
```

Arguments

| | |
|------------|---|
| code | identification code of a serie (e.g. "IPC206449") |
| date_start | start date in format (string) YYYY-MM-DD |
| date_end | end date in format (string) YYYY-MM-DD |
| nult | last n values |
| det | det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default |
| type | what type of plot should be drawn, type = "p" (for points) by default. See type in plot |
| lang | language used to obtain information |

Examples

```
plot_series("IPC206449", nult = 1) # Get the latest data of a series
plot_series("IPC206449", nult = 5, type = "l") # Get the \code{n} last data of a series
plot_series("IPC206449", "2013-01-01", "2016-01-01") # Get data of a series between two dates
plot_series("IPC206449", "2010-01-01") # Get data from a series from a date
```

| | |
|--------------|---------------------|
| update_cache | <i>Update cache</i> |
|--------------|---------------------|

Description

This function allow update specific or all cache data

Usage

```
update_cache(code = 0, n = 0, page = NA, pagination = TRUE,
             page_start = NA, page_end = NA, benchmark = TRUE, force = FALSE,
             ignore_series = NULL)
```

Arguments

| | |
|---------------|--|
| code | operation identificator |
| n | number of operation to update starting from first operation getted from get_operations_all() function. |
| page | page = 1 to obtain data of an specific page (to use this, pagination = FALSE). |
| pagination | TRUE to obtain data page by page and FALSE by default. |
| page_start | page_start = 1 start page range to obtain data (to use this, pagination = TRUE). |
| page_end | page_end = 2 end page range to obtain data (to use this, pagination = TRUE). |
| benchmark | used to measure the performance of the system, benchmark = FALSE by default. |
| force | (boolean) to force to update all cache data, force = FALSE by default. |
| ignore_series | (int) list of operation identificators to ignore. More slow series to cache are: 16, 49, 330 and 334 |

Examples

```
update_cache(code = 249)
update_cache(code = 249, page = 1)
update_cache(n = 3)
```


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