

# Package ‘INEbaseR’

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**Type** Package

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

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**Maintainer** Andres Nacimiento <andresnacimiento@gmail.com>

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

**License** GPL (>= 3)

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**LazyData** false

**BuildResaveData** false

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**Author** Andres Nacimiento [aut, prg, cre],  
Mariano Sanz [ctg],  
Carlos J. Perez [aut, drt, pdr]

**Depends** R (>= 3.5.0)

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draw_serie	<i>Draw serie</i>
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### Description

This function allows representing series data into a map

### Usage

```
draw_serie(serie, nult = 0, classification = NULL, map_scale = 60,
  verbose = FALSE, benchmark = FALSE)
```

### Arguments

serie	(string) serie id
nult	(int) last n serie data, if nult = 0 this value will be auto-calculated
classification	(string) serie classification, if classification = NULL this value will be auto-detected
map_scale	(int) refers to the relationship or ratio between distance on a map and the corresponding distance on the ground. For example, on a 1:1000000 scale map, 1cm on the map equals 1km on the ground. Possible values are: 1, 3, 10, 20 or 60, and it's only for PROV or CCAA geographical granularity, map_scale = 60 by default and map_scale = NULL for high detailed map.
verbose	(boolean) show more information during the process
benchmark	(boolean) used to measure the performance of the system, benchmark = FALSE by default.

### Examples

```
draw_serie("IPC251521")
draw_serie("IPC251541")
draw_serie("UA42121")
```

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get_cache_rds	<i>Get rds content (cache)</i>
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### Description

This function returns the content of a RDS file in cache

### Usage

```
get_cache_rds(object, type = "SERIEOPERATION")
```

### Arguments

object	(string) an object of the "type" option
type	(string) type of content do you want to read, type = "/POLYGONS-" by default

**Examples**

```

get_cache_rds("provincias", type = "POLYGONS")
get_cache_rds("comunidades_autonomas", type = "POLYGONS")
get_cache_rds("municipios", type = "POLYGONS")
get_cache_rds("natcodes", type = "DATATABLE")
get_cache_rds(4, type = "SERIEOPERATION")

```

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get_geographical	<i>Get geographical</i>
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**Description**

This function returns geographical information

**Usage**

```

get_geographical(code = NULL, resource = "variable", all = FALSE,
  verbose = FALSE, natcode = NULL, geocode = NULL,
  exponential_notation = FALSE, help = FALSE)

```

**Arguments**

code	(string) serie id
resource	(string) resource to access, by default resource = "variable" to get serie meta-data. Possible values are variable, natcode or natcode_to_geocode
all	(boolean) if all = TRUE you will get all natcodes
verbose	(boolean) show more information during the process
natcode	(int) geographical code from INE
geocode	(string) geographical code from Eurostat
exponential_notation	(boolean) to show or not exponential notation. e.g. e+10
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.

**Examples**

```

get_geographical("IPC251522")
get_geographical(resource = "variable", help = TRUE)
get_geographical("IPC251522", resource = "natcode")
get_geographical(natcode = 34050000000, resource = "natcode_to_geocode")

```

---

get\_metadata\_crossing    *Get metadata crossing*

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### Description

This function returns data or metadata by metadata crossing

### Usage

```
get_metadata_crossing(code = NULL, resource = "series", help = FALSE,
  query = NULL, p = 1, det = 0, tip = NULL, nlast = 1,
  lang = "ES")
```

### Arguments

code	(string) operation identificator
resource	(string) resource to access, by default resource = "metadata" to get serie meta-data. Possible values are series or data
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
query	(string) string separated by AND with syntax variable = value using natural language
p	(int) periodicity, p = 1 by default
det	(int) det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default
tip	(string) tip = M to obtain the metadata (crossing variables-values) of the series
nlast	last n values
lang	(string) language used to obtain information

### Examples

```
get_metadata_crossing(resource = "series", help = TRUE)
get_metadata_crossing("IPC", resource = "series", query = "Provincias = Madrid AND Tipo de dato = Variacion mensual")
get_metadata_crossing("IPC", resource = "data", query = "Provincias = Madrid AND Tipo de dato = Variacion mensual")
```

---

get\_operations    *Get operations*

---

### Description

This function returns information about operations

### Usage

```
get_operations(code = NULL, resource = "all", help = FALSE,
  ioe = FALSE, geographical_granularity = NULL,
  temporal_granularity = NULL, verbose = TRUE, lang = "ES")
```

**Arguments**

code	(string) operation identifier
resource	(string) resource to access, by default resource = "metadata" to get serie metadata. Possible values are all, metadata, variables_values or by_granularity
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
ioe	(boolean) TRUE if code is in format I030138, and FALSE by default
geographical_granularity	(string) geographical granularity
temporal_granularity	(string) temporal granularity
verbose	(boolean) show more information during the process
lang	(string) language used to obtain information

**Examples**

```

get_operations()
get_operations(resource = "all")
get_operations(resource = "all", help = TRUE)
get_operations("IPC", resource = "metadata")
get_operations("IPC", resource = "variables_values")
get_operations(resource = "by_granularity", geographical_granularity = "PROV")

```

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get_publications	<i>Get publications</i>
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**Description**

This function returns all available publications from an operation or a date

**Usage**

```

get_publications(code = NULL, resource = "all", help = FALSE,
  det = 0, ioe = FALSE, lang = "ES")

```

**Arguments**

code	(string) operation or publication identifier
resource	(string) resource to access, by default resource = "all" to get serie metadata. Possible values are all, operation or date
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
det	(int) det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default
ioe	(boolean) TRUE if code is in format I030138, and FALSE by default
lang	(string) language used to obtain information

## Examples

```
get_publications()
get_publications(resource = "all", help = TRUE)
get_publications("IPC", resource = "operation")
get_publications(8, resource = "date")
```

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get_series	<i>Get series</i>
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## Description

This function returns data or metadata from an operation, table or a serie

## Usage

```
get_series(code = NULL, resource = "metadata", help = FALSE,
  ioe = FALSE, det = 0, tip = NULL, lang = "ES",
  date_start = NULL, date_end = NULL, nlast = NULL,
  classification = NULL, verbose = FALSE, benchmark = FALSE,
  geographical_granularity = NULL, temporal_granularity = NULL)
```

## Arguments

code	(string) serie, operation or table identificator
resource	(string) resource to access, by default resource = "metadata" to get serie meta-data. Possible values are metadata,operation,values,table,metadataoperation,data,by_granularity or nlast
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
ioe	(boolean) TRUE if code is in format I030138, and FALSE by default
det	(int) det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default
tip	(string) tip = M to obtain the metadata (crossing variables-values) of the series
lang	(string) language used to obtain information
date_start	(string) start date in format YYYY-MM-DD
date_end	(string) end date in format YYYY-MM-DD
nlast	(int) last n serie values
classification	(string) serie classification, if classification = NULL this value will be auto-detected
verbose	(boolean) to show more information about this process, verbose = FALSE by default
benchmark	(boolean) used to measure the performance of the system, benchmark = FALSE by default.
geographical_granularity	(string) geographical granularity
temporal_granularity	(string) temporal granularity

## Examples

```
get_series("IPC206449")
get_series(resource = "metadata", help = TRUE)
get_series("IPC", resource = "operation")
get_series("IPC206449", resource = "values")
get_series(22350, resource = "table")
get_series("IPC251541", resource = "nlast")
get_series("IPC206449", resource = "data", nlast = 5)
get_series("IPC", resource = "by_granularity", geographical_granularity = "CCAA", verbose = TRUE)
get_series("IPC251539", resource = "by_common_parameters", verbose = TRUE)
```

---

get_tables	<i>Get tables</i>
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---

## Description

This function returns data / metadata from tables

## Usage

```
get_tables(code = NULL, resource = "operation", help = FALSE,
  grp = NULL, geo = 0, nlast = 0, det = 0, tip = NULL,
  ioe = FALSE, lang = "ES")
```

## Arguments

code	operation (string/int) or table (int) identificator
resource	(string) resource to access, by default resource = "operation" to get tables of an operation. Possible values are operation,group,group_values or data
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource
grp	(int) group identification
geo	(int) use geo = 1 to access only tables with geographic content, geo = 0 by default
nlast	last n values
det	(int) use det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default
tip	(string) use tip = "A" to view as friendly, specifically the view the field ultima_modificacion or use tip = "AM" to obtain the metadata (crossing variables-values) of the series and a friendly output.
ioe	(boolean) use ioe = TRUE if code is in format IO30138, and FALSE by default
lang	(string) language used to obtain information

## Examples

```
get_tables("IPC")
get_tables(resource = "operation", help = TRUE)
get_tables(25, resource = "operation")
get_tables(22350, resource = "group")
get_tables(22350, grp = 81497, resource = "group_values")
get_tables(22350, nlast = 5, resource = "data")
```

---

get\_values

*Get values*


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### Description

This function returns values from a variable or variable operation

### Usage

```
get_values(code = NULL, resource = "all", operation = NULL,
           help = FALSE, det = 0, ioe = FALSE, lang = "ES")
```

### Arguments

code	(int) variable indentificator
resource	(string) resource to access, by default resource = "all" to get serie metadata. Possible values are all or variable_operation
operation	(string) operation indentificator
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
det	(int) det = 1 to see the detail of the variable to which it belongs, det = 0 by default
ioe	(boolean) TRUE if code is in format IO30138, and FALSE by default
lang	(string) language used to obtain information

### Examples

```
get_values(115)
get_values(resource = "all", help = TRUE)
get_values(762, operation = "IPC", resource = "variable_operation")
```

---

get\_variables

*Get variables*


---

### Description

This function returns all or operations variables

### Usage

```
get_variables(code = NULL, resource = "all", help = FALSE,
              ioe = FALSE, lang = "ES")
```



**Arguments**

code	(string) operation identifier
resource	(string) resource to access, by default resource = "metadata" to get serie meta-data. Possible values are all or operation
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
ioe	(boolean) TRUE if code is in format IO30138, and FALSE by default
lang	(string) language used to obtain information

**Examples**

```
get_variables()
get_variables(resource = "all", help = TRUE)
get_variables("IPC", resource = "operation")
```

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

### 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 <a href="#">plot</a>
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
```

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

### Description

This function allows to update cache data

### Usage

```
update_cache(code = NULL, resource = "series", help = FALSE, n = 0,
             page = 1, pagination = TRUE, page_start = NA, page_end = NA,
             benchmark = FALSE, force = FALSE, ignore_series = NULL,
             tip = "M", det = 2, lang = "ES")
```

**Arguments**

code	(string) operation identificator
resource	(string) resource to access, by default resource = "all" to get serie metadata. Possible values are all or variable_operation
help	(boolean) type any value for resource param and type help = TRUE to see params available for this resource.
n	(int) number of operation to update starting from first operation getted from get_operations_all() function.
page	(int) page = 1 to obtain data of an specific page (to use this, pagination = FALSE).
pagination	(boolean) TRUE to obtain data page by page and FALSE by default.
page_start	(int) page_start = 1 start page range to obtain data (to use this, pagination = TRUE).
page_end	(int) page_end = 2 end page range to obtain data (to use this, pagination = TRUE).
benchmark	(boolean) 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	(list) list of operation identificators to ignore. More slow series to cache are: 16, 49, 330 and 334
tip	(string) tip = M to obtain the metadata (crossing variables-values) of the series.
det	(int) det = 2 to see two levels of depth, specifically to access the PubFechaAct object, det = 0 by default
lang	(string) language used to obtain information

**Examples**

```
update_cache(resource = "series")  
update_cache(resource = "series", help = TRUE)
```

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