Package 'oec'

August 16, 2016

Type Package

Title The Observatory of Economic Complexity

Version 2.0

Date 2016-08-12

Author Mauricio Vargas S.

Maintainer Mauricio Vargas S. <mauriciovargas@ug.uchile.cl>

URL http://atlas.media.mit.edu/en/, https://github.com/pachamaltese/oec/

Description Use The Observatory of Economic Complexity's API from R console to obtain international trade data to create spreadsheets (csv format) and D3plus visualizations.

License MIT + file LICENSE

LazyData TRUE

Depends curl,
data.table,
jsonlite,
plyr,
servr

RoxygenNote 5.0.1

R topics documented:

---

oec-package   *The Observatory of Economic Complexity*

Description

Use The Observatory of Economic Complexity's API from R console to obtain international trade data to create spreadsheets (csv format) and D3Plus visualizations.

Details

The functions provided within this package are:

install_d3plus Installs D3 and D3plus.

demos Copies the demo file.

getdata Downloads and processes the data from the API.

network Creates a network for a given year.

network_comparison Creates a network to compare two years.

treemap Creates a treemap for a given year.

The datasets provided within this package are:

countries_list A list of all the countries in the world and its respective country code.

hs92_2char HS92 groups. This file is used to create spreadsheets and visualizations with trade data.

hs92_6char HS92 products (6 characters codes). This file is used to create spreadsheets and visualizations with trade data.

hs92_8char HS92 products (8 characters codes). This file is used to create spreadsheets and visualizations with trade data.

hs_colors HS92 colors. This file is used to create spreadsheets and visualizations based on trade data.

sitc_rev2_2char SITC (rev. 2) groups. This file is used to create spreadsheets and visualizations with trade data.

sitc_rev2_4char SITC (rev. 2) products (4 characters codes). This file is used to create spreadsheets and visualizations with trade data.

sitc_colors SITC (rev. 2) colors. This file is used to create spreadsheets and visualizations with trade data.

---

countries_list   *A list of all the countries*

Description

A list of all the countries in the world and its country code. You need the country code (e.g. chl) to obtain data of a country (e.g Chile)

Usage

```
countries_list
```

Format

A data frame with 262 observations on the following 2 variables.

`country` the full names of the countries

`country_code` the ids of the countries

Examples

```
countries_list
```

---

demos	*Copies the demo file*

Description

Copies the demo file

Usage

```
demos()
```

Value

Copies a file named `demo_examples.R` to the working directory.

Examples

```
demos()
```

---

getdata	*Downloads and processes the data from the API*

Description

Downloads and processes the data from the API

Usage

```
getdata(origin, destination, classification, year)
```

Arguments

`origin`	is the country code of origin (e.g. "chl" for Chile)
`destination`	is the country code of origin (e.g. "chn" for China)
`classification`	refers to the trade classification that can be "6" (HS92 6 characters) or "8" (HS92 8 characters) for the year 1995 and going or "4" (SITC rev.2 4 characters) for the year 1962 and ongoing
`year`	is the year and the OEC's API ranges from 1962 to 2014

Examples

```
# Run countries_list() to display the full list of countries
# Chile is "chl" and China is "chn"

# Download Chile (chl) and China (chn) trade data (imports, export and trade balance)
getdata("chl", "chn", 6, 2010)

# Download trade data from OEC's API (HS92 6 characters product lists)
getdata("chl", "chn", 6, 2010)

# Download trade data from OEC's API (SITC rev.2 4 characters product lists)
getdata("chl", "chn", 4, 2010)
```

---

hs92_2char   *HS92 groups*

Description

HS92 groups. This file is used to create the visualizations.

Usage

```
hs92_2char
```

Format

A data frame with 22 observations on the following 2 variables.

group Contains the H292 groups (e.g. animal products, vegetable products, etc)

group_id Contains the associated codes of every group (e.g. animal products is 01)

Examples

```
hs92_2char
```

---

hs92_6char   *HS92 products (6 characters)*

Description

HS92 products (6 characters). This file is used to create the visualizations.

Usage

```
hs92_6char
```

Format

A data frame with 1242 observations on the following 4 variables.

product Contains the H292 products' names (e.g. horses, bovine, pigs, etc)

group Contains the H292 groups (e.g. animal products, vegetable products, etc)

product_id Contains the associated codes of every product (e.g. horses is 010101)

group_id Contains the associated codes of every group (e.g. animal products is 01)

Examples

```
hs92_6char
```

---

hs92_8char *HS92 products (8 characters)*

Description

HS92 products (8 characters). This file is used to create the visualizations.

Usage

```
hs92_8char
```

Format

A data frame with 5040 observations on the following 4 variables.

product Contains the H292 products' names (e.g. horses, bovine, pigs, etc)

group Contains the H292 groups (e.g. animal products, vegetable products, etc)

product_id Contains the associated codes of every product (e.g. horses is 010101)

group_id Contains the associated codes of every group (e.g. animal products is 01)

Examples

```
hs92_8char
```

---

hs_colors   *HS92 colors*

Description

HS92 colors. This file is used to create the visualizations.

Usage

```
hs_colors
```

Format

A data frame with 21 observations on the following 2 variables.

group Contains the H292 groups (e.g. animal products, vegetable products, etc)

color Contains the associated colors of every group (e.g. mineral products is #330000)

Examples

```
hs_colors
```

---

install_d3plus   *Installs D3 and D3plus*

Description

Installs D3 and D3plus

Usage

```
install_d3plus()
```

Value

Copies a folder named d3plus to the working directory and it contains the js files and icons to make the visualizations

Examples

```
install_d3plus()
```

---

network   *Creates a network for a given year*

Description

Creates a network for a given year

Usage

```
network(origin, destination, classification, year)
```

Arguments

`origin`	is the country code of origin (e.g. "chl" for Chile)
`destination`	is the country code of origin (e.g. "chn" for China)
`classification`	refers to the trade classification that can be "6" (HS92 6 characters) or "8" (HS92 8 characters) for the year 1995 and going or "4" (SITC rev.2 4 characters) for the year 1962 and ongoing
`year`	is the year and the OEC's API ranges from 1962 to 2014

Value

Creates an HTML file with a network visualization for a given year.

Examples

```
network("chl", "chn", 6, 2014)
```

---

network_comparison   *Creates a network to compare two years*

Description

Creates a network to compare two years

Usage

```
network_comparison(origin, destination, classification, year1, year2)
```

Arguments

`origin`	is the country code of origin (e.g. "chl" for Chile)
`destination`	is the country code of origin (e.g. "chn" for China)
`classification`	refers to the trade classification that can be "6" (HS92 6 characters) or "8" (HS92 8 characters) for the year 1995 and going or "4" (SITC rev.2 4 characters) for the year 1962 and ongoing
`year1`	is the initial year and the OEC's API ranges from 1962 to 2014
`year2`	is the final year and the OEC's API ranges from 1962 to 2014

Value

Creates an HTML file with a network visualization that compares two given years.

Examples

```
network_comparison("chl", "chn", 6, 2010, 2014)
```

---

sitc_colors   *SITC (rev. 2) colors*

Description

SITC (rev. 2) colors. This file is used to create the visualizations.

Usage

```
hs_colors
```

Format

A data frame with 36 observations on the following 2 variables.

group Contains the SITC (rev. 2) groups (e.g. machinery, electronics, etc)

color Contains the associated colors of every group (e.g. machinery is #17bcef)

Examples

```
sitc_colors
```

---

sitc_rev2_2char   *SITC (rev. 2) groups*

Description

SITC (rev. 2) groups. This file is used to create the visualizations.

Usage

```
hs92_2char
```

Format

A data frame with 36 observations on the following 2 variables.

group Contains the SITC (rev. 2) groups (e.g. machinery, electronics, etc)

group_id Contains the associated codes of every group (e.g. machinery is 10)

Examples

```
sitc_rev2_2char
```

---

sitc_rev2_4char   *SITC (rev. 2) products (4 characters)*

Description

SITC (rev. 2) products (4 characters). This file is used to create the visualizations.

Usage

```
sitc_rev2_4char
```

Format

A data frame with 1242 observations on the following 5 variables.

product Contains the H292 products' names (e.g. initiating devices, polymerization ion exchangers, etc)

group Contains the H292 groups (e.g. machinery, electronics products, etc)

product_id Contains the associated codes of every product (e.g. initiating devices is 5722)

group_id Contains the associated codes of every group (e.g. machinery is 10)

id Contains the associated extended codes of every group (e.g. machinery is 105722 that is group code + product code)

Examples

```
sitc_rev2_4char
```

---

treemap   *Creates a treemap for a given year*

Description

Creates a treemap for a given year

Usage

```
treemap(origin, destination, variable, classification, year, depth)
```

Arguments

origin	is the country code of origin (e.g. "chl" for Chile)
destination	is the country code of origin (e.g. "chn" for China)
variable	is the variable to visualize and it can be "imports", "exports" or "exchange" (trade exchange)
classification	refers to the trade classification that can be "6" (HS92 6 characters) or "8" (HS92 8 characters) for the year 1995 and going or "4" (SITC rev.2 4 characters) for the year 1962 and ongoing
year	is the year and the OEC's API ranges from 1962 to 2014
depth	is an optional parameter that can take values "0" (group's detail) or "1" (product's detail)

Value

Creates an HTML file with a treemap visualization for a given year.

Examples

```
treemap("chl", "chn", "exports", 6, 2014)
```

Index