

Package ‘ICON’

May 20, 2020

Type Package

Title Provides Easy Access to Complex Systems Datasets

Version 0.2.0

Description Provides easy-to-use and easy-to-access datasets from the Index of COmplex Networks (ICON) database available on the University of Colorado website. All datasets can be loaded with a single function call and new datasets are being slowly added from ICON at <<https://icon.colorado.edu>>. Specific ICON datasets of interest can be requested at the BugReports URL <<https://github.com/rrrlw/ICON/issues>>.

Depends R (>= 2.10)

Imports utils (>= 3.6.1)

License CC0

Encoding UTF-8

LazyData true

URL <https://github.com/rrrlw/ICON>

BugReports <https://github.com/rrrlw/ICON/issues>

RoxygenNote 7.1.0

NeedsCompilation no

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R topics documented:

get_data	2
ICON	2
ICON_data	3

Index	4
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get_data

Download and Load Complex Network Datasets

Description

Downloads the binary complex network dataset (rda format), then loads the dataset into the R environment, and deletes the downloaded file from the user's file system.

Usage

```
get_data(dataset_name, destdir = ".")
```

Arguments

dataset_name	dataset variable name (corresponds to var_name in ICON_data)
destdir	location to temporarily download binary file

Examples

```
## Not run:
# load single dataset
get_data("chess")

# load multiple datasets
get_data(c("karate_club", "word_adj"))

# fail to load dataset not in the ICON R package
get_data("not_a_dataset")

## End(Not run)
```

ICON

ICON: Provides Easy Access to Complex Systems Datasets

Description

Provides easy-to-use and easy-to-access datasets from the Index of COMplex Networks (ICON) database available on the University of Colorado website. All datasets can be loaded with a single function call and new datasets are being slowly added from ICON.

ICON_data*Details about ICON datasets*

Description

Data frame containing relevant details of each network dataset included in the ICON R package.

Usage

ICON_data

Format

A data frame with 10 columns and 22 rows:

Var_name character; variable name to access dataset in R

Edges integer; number of edges in network

Directed logical; 0 if undirected network, 1 if directed

Weighted logical; 0 if unweighted network, 1 if weighted

Name character; network title

Year integer; year network was published/released

Source character; usually URL to access raw network data

Description character; short description of network

Citation character; how to cite network if used

Details

Citation: Aaron Clauset, Ellen Tucker, and Matthias Sainz, "The Colorado Index of Complex Networks." <https://icon.colorado.edu/> (2016).

Raoul R. Wadhwa and Jacob G. Scott, "ICON" R package. <https://cran.r-project.org/package=ICON> (2019).

Source

<https://icon.colorado.edu>

Index

*Topic **datasets**

ICON_data, [3](#)

get_data, [2](#)

ICON, [2](#)

ICON_data, [3](#)