# Package 'DeductiveR'

January 20, 2025

Type Package Title Deductive Rational Method Version 1.1.0 Date 2024-12-16 Description Apply the Deductive Rational Method to a monthly series of flow or precipitation data to fill in missing data. The method is as described in: Campos, D.F., (1984, ISBN:9686194444). License GPL-3 LazyData true **Encoding** UTF-8 RoxygenNote 7.2.3 Imports dplyr, reshape2, ggplot2, moments, ggpubr, lmomco Suggests rmarkdown, knitr VignetteBuilder knitr **Depends** R (>= 2.10) NeedsCompilation no Author Alonso Arriagada [aut, cre] Maintainer Alonso Arriagada <alonso.arriagada@usach.cl> **Repository** CRAN

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data

## Description

A dataset containing dates and monthly flow values.

# Usage

data

#### Format

A data frame with 480 rows and 5 variables:

date dates
year years
month months
day days
4400001 flows, in cubic meters per second

#### Source

https://camels.cr2.cl/

DR

Apply the Deductive Rational Method to a monthly series of flow or precipitation data to fill in missing data.

### Description

Apply the Deductive Rational Method to a monthly series of flow or precipitation data to fill in missing data.

#### Usage

DR(data)

#### Arguments

data data frame with columns: date - year - month - day - station (Type date and numeric the rest)

DR_boxplot	<i>BoxPlot from the result from the application of the Deductive Rational Method</i>

### Description

BoxPlot from the result from the application of the Deductive Rational Method

# Usage

DR\_boxplot(dr)

### Arguments

dr	data frame from DR function
DR_plot	Plot the result from the application of the Deductive Rational Method

# Description

Plot the result from the application of the Deductive Rational Method

### Usage

DR\_plot(dr)

# Arguments

dr	data frame from DR function
DR_stats	Statistics for the result from the application of the Deductive Rational Method

# Description

Statistics for the result from the application of the Deductive Rational Method

## Usage

DR\_stats(dr)

# Arguments

dr data frame from DR function DR\_SVC

Seasonal Variation Curves considering results from the application of the Deductive Rational Method

# Description

Seasonal Variation Curves considering results from the application of the Deductive Rational Method

# Usage

 $DR_SVC(dr)$ 

# Arguments

dr

data frame from DR function

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