

# Package: esmisc (via r-universe)

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**Type** Package

**Title** Misc Functions of Eduard Szöcs

**Version** 0.0.3.9002

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**Maintainer** Eduard Szöcs <eduardsoecs@gmail.com>

**Description** Misc functions programmed by Eduard Szöcs. Provides read\_regnie() to read gridded precipitation data from German Weather Service (DWD, see <<http://www.dwd.de/>> for more information).

**License** MIT + file LICENSE

**URL** <https://github.com/EDiLD/esmisc>

**BugReports** <https://github.com/EDiLD/esmisc/issues>

**Encoding** UTF-8

**LazyLoad** yes

**LazyData** yes

**Depends** R (>= 3.1.0)

**Imports** raster, ggplot2, readr

**Suggests** testthat

**RoxygenNote** 6.0.0

**Repository** <https://eduardsoecs.r-universe.dev>

**RemoteUrl** <https://github.com/eduardsoecs/esmisc>

**RemoteRef** HEAD

**RemoteSha** 780f698c37ed7a9e759acab76b9631471c36b850

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geomean	<i>Geometric mean</i>
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## Description

Function for the geometric mean.

## Usage

```
geomean(x, na.rm = TRUE)
```

## Arguments

x	a numeric vector.
na.rm	a logical value indicating whether NA values should be stripped before the computation proceeds.

## Details

The geometric mean is computed as

$$x = e^{(\sum \log x)/n}$$

## Value

numeric vector of length one with the geometric mean.

## References

<http://stackoverflow.com/questions/2602583/geometric-mean-is-there-a-built-in>

## Examples

```
x <- c(1, 10, 100)
mean(x)
geomean(x)
```

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numextractall	<i>Extract numbers from string</i>
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**Description**

Extract numbers from string

**Usage**

```
numextractall(x)
```

**Arguments**

x	string
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**Value**

numeric vector

**References**

<http://stackoverflow.com/questions/19252663/extracting-decimal-numbers-from-a-string>

**Examples**

```
numextractall('1 2 3')
numextractall('1,2,3')
numextractall('1;2,3 4')
numextractall('1;2,3 4,46')
```

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read_regnie	<i>Read DWD REGNIE gridded data into R</i>
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**Description**

This functions reads DWD REGNIE data. A description of the data can be found here (pdf-format): [https://www.dwd.de/DE/leistungen/regnie/download/regnie\\_beschreibung\\_pdf.pdf?\\_\\_blob=publicationFile&v=2](https://www.dwd.de/DE/leistungen/regnie/download/regnie_beschreibung_pdf.pdf?__blob=publicationFile&v=2). Data is available here: [ftp://ftp-cdc.dwd.de/pub/CDC/grids\\_germany/daily/regnie/](ftp://ftp-cdc.dwd.de/pub/CDC/grids_germany/daily/regnie/).

**Usage**

```
read_regnie(file)
```

**Arguments**

file	path to gz archive
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**Value**

A RasterLayer object.

**Examples**

```
# Read daily precipitation on 20.01.2005.  
r <- read_regnie(system.file("extdata", "ra050120.gz", package = "esmisc"))
```

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theme_edi	<i>Custom ggplot2 theme</i>
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**Description**

Custom ggplot2 theme

**Usage**

```
theme_edi(base_size = 14, base_family = "Helvetica")
```

**Arguments**

base_size	basefont size
base_family	base font family

**Examples**

```
library(ggplot2)  
p <- ggplot(mtcars) +  
  geom_point(aes(x = wt, y = mpg,  
  colour=factor(gear))) + facet_wrap(~am)  
p  
p + theme_edi()
```

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