Package 'meteogRam'

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Depends ggplot2, RadioSonde

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Title Tools for plotting meteograms

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Description meteogram is a collection of programs for plotting
meteograms for meteorological data such as atmospheric cross
section, temperatures plots.

License GPL-2

URL

Repository CRAN

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NeedsCompilation no

R topics documented:

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crosssection   *Atmospheric cross section*

Description

Visualisation of atmospheric cross section.

Usage

```
crosssection(humi,wind,temperature,plot.temp=TRUE,plot.wind=TRUE,
colors=c("brown", "yellow","green"),ylab_tics,ylab,
h_limit,h_step,p_nr)
```

Arguments

humi	R dataframe with humidity values for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)
wind	R dataframe with wind u and v components for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, first all u components of wind, than v components, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)
temperature	R dataframe with temperature values for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)
plot.temp	Logical, if TRUE plot temperature
plot.wind	Logical, if TRUE plot wind
colors	Colors for humidity contours, must define 3 colors like in: colors=c("brown", "yellow","green")
ylab_tics	Possition of y ticks, from 0 to 1. 0 - the highest pressure, 1 - the lowest one.
ylab	y label names, for example ylab=c(1000,800,600,400,200,100)
h_limit	length of forecast in hours, for example h_limit=54
h_step	time step of forecast in hours, for example h_step=3
p_nr	number of pressure levels = number of columns in indata

Author(s)

Bogdan Bochenek

Examples

```
data(example_humi)
data(example_wind)
data(example_temperature)
crosssection(humi,wind,temperature,plot.temp=TRUE,plot.wind=TRUE,
colors=c("brown", "yellow","green"),
ylab_tics=c(0,0.2,0.4,0.6,0.8,0.9),
ylab=c(1000,800,600,400,200,100),
h_limit=54,h_step=3,p_nr=10)
```

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temperatures   *Temperature meteogram*

Description

Visualisation of temperatures.

Usage

```
temperatures(temperature.data,plot.dewt=TRUE,plot.surf=TRUE,
plot.min_max=TRUE)
```

Arguments

temperature.data

> R dataframe with 6 columns: time in hours, temperature at 2 meters, minimal temperature at 2 meters, maximal temperature at 2 meters, surface temperature, dew point temperature. temperature.data should have at least Temperature and time columns. Dataframe should have nomes as follow: time, Temperature, minT, maxT, Tdew, surf.temp

plot.dewt   Logical, if TRUE plot dew point temperature

plot.surf   Logical, if TRUE plot surface temperature

plot.min_max   Logical, if TRUE plot min and max temperatures

Author(s)

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Examples

```
data(example_temperature.data)
temperatures(temperature.data,plot.dewt=TRUE,plot.surf=TRUE,
plot.min_max=TRUE)
```

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