

R documentation

of 'Ops.band_stat.Rd'

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band_stat

Computes statistics for each band of raster.

Description

For each band of `ursaRaster` object, `band_stat` returns certain statistics (mean, sd, sum, min, max, number of non-NA pixels, number of NA pixels). Regarding to each band, it is *global* operations of map algebra.

Usage

```
band_stat(x, grid = FALSE, raw = FALSE)
```

Arguments

<code>x</code>	Object of class <code>ursaRaster</code> .
<code>grid</code>	Logical. If TRUE then metadata are returned instead of statistics. Default is FALSE
<code>raw</code>	Logical. For the case of raster values are categories, if <code>raw=TRUE</code> , then function returns statistics of categories; if <code>raw=FALSE</code> and names of categories can be transformed to numerical values, then function returns statistics for decategorized values. Default is FALSE.

Details

If raster values are not in memory or `grid=TRUE` then [ursa_info](#) is returned.

Generic function [print](#) for object of class `ursaRaster` uses returned value of `band_stat` function with formatted columns.

Statistics is computed for omitted NA values.

Value

`data.frame`. Row names are indices of bands. Column names are:

name	Band name.
mean	Mean value.
sd	Value of standard deviation with n-1 denomination.
sum	Sum of values.
min	Minimal value.
max	Maximal value.
n	Number of non-NA pixels.
nNA	Number of NA pixels.

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See Also

Columns extraction from returned data frame is in the group of `band.*` functions.

Examples

```
session_grid(NULL)
s <- substr(as.character(sessionInfo()),1,48)
a <- reclass(ursa_dummy(mul=1/2,bandname=s),ramp=FALSE)
band_stat(a,grid=TRUE)
b2 <- band_stat(a)
b3 <- band_stat(a,row=TRUE)
str(b2)
str(b3)
print(b2)
print(a) ## 'print.ursaRaster' uses 'band_stat'
print(a,row=TRUE)
```

Index

* **spatial**
band_stat, [1](#)

band.*, [2](#)
band_stat, [1](#)

data.frame, [2](#)

print, [1](#)

ursa_info, [1](#)