Package ‘Grid2Polygons’

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Title Convert Spatial Grids to Polygons
Version 0.2.1

Description The functionality of this package has been deprecated; please use the Grid2Polygons function in the inlmisc package instead.
Converts a spatial object from class sp::SpatialGridDataFrame to sp::SpatialPolygonsDataFrame.

Depends R (>= 2.15.0)
Imports inlmisc (>= 0.3.0), methods, raster, rgeos, sp
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License GPL (>= 2)
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**Convert Spatial Grids to Polygons**

**Description**

This function has been deprecated; please use inlmisc::Grid2Polygons instead. Used to convert sp spatial objects from class 'SpatialGridDataFrame' to 'SpatialPolygonsDataFrame'. Spatial polygons can then be transformed to a different projection or datum with spTransform in package rgdal. Image files created with spatial polygons are reduced in size and result in a much "cleaner" version of your image.

**Usage**

Grid2Polygons(grd, zcol = 1L, level = FALSEL, atL, cuts = RPL, pretty = FALSEL, xlim = NULLL, ylim = NULLL, ply = NULLL, ...)

**Arguments**

- **grd**: SpatialGridDataFrame. Spatial grid data frame
- **zcol**: character or integer. Attribute name or column number in attribute table.
- **level**: logical. If true, a set of levels is used to partition the range of z, its default is false.
- **at**: numeric. A vector giving breakpoints along the range of z.
- **cuts**: integer. Number of levels the range of z would be divided into.
- **pretty**: logical. Whether to use pretty cut locations.
- **xlim**: numeric. Vector of length 2 giving left and right limits of the spatial grid, data outside these limits is excluded.
- **ylim**: numeric. Vector of length 2 giving lower and upper limits of the spatial grid, data outside these limits is excluded.
- **ply**: SpatialPolygons, or SpatialGridDataFrame. Cropping polygon
- **...**: Not used

**Details**

Converts sp spatial objects from class SpatialGridDataFrame to SpatialPolygonsDataFrame. Spatial polygons can then be transformed to a different projection or datum with spTransform in package rgdal. Image files created with spatial polygons are reduced in size and result in a much "cleaner" version of your image.

**Value**

Returns an object of SpatialPolygonsDataFrame. The objects data slot is a data frame, number of rows equal to the number of Polygons objects and a single column containing values of z. If level is true, z values are set equal to the midpoint between breakpoints. The status of the polygon as a hole or an island is taken from the ring direction, with clockwise meaning island, and counterclockwise meaning hole.
Note

The traditional R graphics model does not draw polygon holes correctly, holes overpaint their containing Polygon object using a user defined background color (white by default). Polygon holes are now rendered correctly using the plot method for spatial polygons (SpatialPolygons-class), see polypath for more details. The Trellis graphics model appears to rely on the traditional method so use caution when plotting with spplot.

Author(s)

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References

A general explanation of the algorithm provided here; inspiration provided here.

See Also

Grid2Polygons

Examples

```r
## not run:
data(meuse.grid, package = "sp")
sp::coordinates(meuse.grid) <- ~ x + y
sp::gridded(meuse.grid) <- TRUE
meuse.grid <- as(meuse.grid, "SpatialGridDataFrame")
meuse.plys <- Grid2Polygons(meuse.grid, "dist", level = FALSE)
op <- par(mfrow = c(1, 2), oma = rep(0, 4), mar = rep(0, 4))
sp::plot(meuse.plys, col = heat.colors(length(meuse.plys)))
title("level = FALSE", line = -7)
meuse.plys.lev <- Grid2Polygons(meuse.grid, "dist", level = TRUE)
sp::plot(meuse.plys.lev, col = heat.colors(length(meuse.plys.lev)))
title("level = TRUE", line = -7)
par(op)

## end(not run)
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