

Package ‘KMLtoSHAPE’

January 20, 2025

Type Package

Title Preserving Attribute Values: Converting KML to Shapefile

Version 0.1.0

Depends R(>= 2.10)

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

Description The developed function is designed to facilitate the seamless conversion of KML (Keyhole Markup Language) files to Shapefiles while preserving attribute values. It provides a straightforward interface for users to effortlessly import KML data, extract relevant attributes, and export them into the widely compatible Shapefile format. The package ensures accurate representation of spatial data while maintaining the integrity of associated attribute information. For details see, Flores, G. (2021). <[DOI:10.1007/978-3-030-63665-4_15](https://doi.org/10.1007/978-3-030-63665-4_15)>. Whether for spatial analysis, visualization, or data interoperability, it simplifies the conversion process and empowers users to seamlessly work with geospatial datasets.

License GPL (>= 2.0)

Encoding UTF-8

Imports raster,stringr,sf

RoxygenNote 7.2.3

NeedsCompilation no

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Repository CRAN

Date/Publication 2024-04-30 11:20:05 UTC

Contents

kml_to_shape	2
kml_to_shape_gen	3

kml_to_shape	<i>Conversion from KML to Shapefile While Preserving Attribute Values</i>
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Description

Conversion from KML to Shapefile While Preserving Attribute Values

Usage

```
kml_to_shape(data_kml, outputShape)
```

Arguments

data_kml	Path to the KML file
outputShape	Path to save the output shapefile

Value

A shapefile with extracted attributes

References

1. Flores, G. & Gallardo, C. (2021). Creating Shapefile Files in ArcMap from KML File Generated in My Maps. In *Advances in Emerging Trends and Technologies: Proceedings of ICAETT 2020* (pp. 193-204). Springer International Publishing. <DOI:10.1007/978-3-030-63665-4_15> 2. Kumar et al. (2023). SpatGRID: Spatial Grid Generation from Longitude and Latitude List. R package version 0.1.0.

Examples

```
library(KMLtoSHAPE)
# Example usage:
data_kml <- system.file("extdata", "testkml.kml", package = "KMLtoSHAPE")
outputShape <- file.path(tempdir(), "shapedata.shp")
# Delete existing shapefile if it exists
if(file.exists(outputShape)) file.remove(outputShape)
# convert kml to shapefile
test_data<-kml_to_shape(data_kml, outputShape)
```

kml_to_shape_gen	<i>Conversion from KML to Shapefile after Extracting Attributes from a Description String based on a List of Attribute Names</i>
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Description

Conversion from KML to Shapefile after Extracting Attributes from a Description String based on a List of Attribute Names

Usage

```
kml_to_shape_gen(data_kml, outputShape, attribute_names)
```

Arguments

data_kml	Path to the KML file
outputShape	Path to save the output shapefile
attribute_names	A character vector of attribute names to extract

Value

A shapefile with extracted attributes

References

1. Flores, G. & Gallardo, C. (2021). Creating Shapefile Files in ArcMap from KML File Generated in My Maps. In *Advances in Emerging Trends and Technologies: Proceedings of ICAETT 2020* (pp. 193-204). Springer International Publishing. <DOI:10.1007/978-3-030-63665-4_15>
2. Kumar et al. (2023). SpatGRID:Spatial Grid Generation from Longitude and Latitude List. R package version 0.1.0.

Examples

```
library(KMLtoSHAPE)
# Example usage:
data_kml <- system.file("extdata", "testkml.kml", package = "KMLtoSHAPE")
outputShape <- file.path(tempdir(), "shapedata.shp")
# Delete existing shapefile if it exists
if(file.exists(outputShape)) file.remove(outputShape)
# Specify attribute names
attribute_names <- c("pH", "EC", "OC", "N", "P", "K")
# convert kml to shapefile
test_data<-kml_to_shape_gen(data_kml, outputShape,attribute_names)
```

Index

`km1_to_shape`, [2](#)

`km1_to_shape_gen`, [3](#)