

Package ‘gibble’

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Title Geometry Decomposition

Version 0.0.2

Description Build a map of path-based geometry, this is a simple description of the number of parts in an object and their basic structure. Translation and restructuring operations for planar shapes and other hierarchical types require a data model with a record of the underlying relationships between elements. The `gibble()` function creates a geometry map, a simple record of the underlying structure in path-based hierarchical types. There are methods for the planar shape types in the 'sf' and 'sp' packages.

Depends R (>= 3.3.0)

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

Imports dplyr, methods, tibble

Suggests covr, sp, testthat

URL <https://github.com/mdsumner/gibble>

BugReports <https://github.com/mdsumner/gibble/issues>

NeedsCompilation no

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Repository CRAN

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gibble-package	<i>gibble package</i>
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Description

Path-based geometry decomposition to data frame.

gibble	<i>Path-based geometry decomposition</i>
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Description

A gibble is a geometry map, a summary of the structure of each path within a simple planar shape. The generic function `gibble()` will summarize all paths within a complex type with a data frame row for each. Each row of the gibble summary represents a component element of the object's geometry and records the number of rows (i.e. how many coordinates) and the number of columns (i.e. the number of axes in the geometric space). Another column type records the class of the object, and `object` records an identifier for the entire object. A special case column `subobject` identifies the component POLYGON part within a MULTIPOLYGON. I.e. `subobject` is 1 unless that part is a hole. All identifiers are sequential within the higher level groupings.

Usage

```
## S3 method for class 'trip'
gibble(x, ...)

## S3 method for class 'Polygon'
gibble(x, ...)

## S3 method for class 'Polygons'
gibble(x, ...)

## S3 method for class 'SpatialPolygons'
gibble(x, ...)

## S3 method for class 'Line'
gibble(x, ...)

## S3 method for class 'Lines'
gibble(x, ...)

## S3 method for class 'SpatialLines'
gibble(x, ...)

## S3 method for class 'SpatialMultiPoints'
```

```

gibble(x, ...)

## S3 method for class 'SpatialPoints'
gibble(x, ...)

## S3 method for class 'Spatial'
gibble(x, ...)

gibble(x, ...)

```

Arguments

x	geometry model
...	arguments reserved for methods, none currently

Details

Methods are provided for the *sf* classes. There is an internal version that is designed to work fast on sets of structures, by delaying conversion to list or data frame for as late as possible.

A geometry map is not so helpful on its own, and so does not have a formal class. It is designed for use within other workflows such as updating the coordinates of model object or translating between superficially different formats.

Gibble is a distillation of the `sc_path` encoding of package *silicate*, which came from the `map_table` decompositions of `spbabel`, as an improvement on the single-table `fortify` model used in `ggplot2`.

Value

data frame summarizing the geometry map, see `Details`

Examples

```
gibble(minimal_mesh)
```

hsh	<i>hsh, home sweet home</i>
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Description

A testing data set, a list of poly, line, points

minimal_mesh	<i>minimal mesh</i>
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Description

A testing data set, composed of two MULTIPOLYGONS sharing one edge.

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