Package 'MSMB'

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Title Data sets for the book 'Modern Statistics for Biology'

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Description Data sets for the book 'Modern Statistics for Modern Biology', S.P. Holmes and W. Huber.

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License LGPL

Depends R (>= 3.5), tibble

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brcalymphnode — *Coordinates and cell types in a histopathology slide of a breast cancer patient's lymph node*

Description

Coordinates and cell types in a histopathology slide of a breast cancer patient's lymph node.

Usage

```
data("brcalymphnode")
```

Format

A `data.frame`.

Details

This dataset is used as an example in the 'Image data' chapter. See there for more details about it.

Examples

```
data("brcalymphnode")
plot(x = brcalymphnode$x, y = brcalymphnode$y, pch=".", col = brcalymphnode$class)
```

ukraine_dists — *Coordinates of and pairwise distances between hero cities and oblast capitals in Ukraine*

Description

This dataset is used as an example in the 'Multivariate methods for heterogeneous data' chapter.

Usage

```
data("ukraine_dists")
data("ukraine_coords")
```

Format

`ukraine_dists` is an object of S3 class `dist`. `ukraine_coords` is a `tibble`.

Details

The two datasets were constructed using the R code in the file '`ukraine-dists.R`' in the '`scripts`' directory of this package. Briefly, the city and place names are hardcoded in the script, coordinates were queried from OpenStreetMap using the `geo` function in the **tidygeocoder**, and pairwise geodesic distances computed using the `geodist` function from the eponymous package.

Examples

```
 data("ukraine_coords")
plot(x = ukraine_coords$lon, y = ukraine_coords$lat, pch = 16, cex = 0.7, col = "#0057b7", asp = 1 / cos(pi / 180 *
text(x = ukraine_coords$lon, y = ukraine_coords$lat, labels = ukraine_coords$city, adj = c(0.5, -0.2))
```

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