Package 'spatstat.gui'

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Type Package

Title Interactive Graphics Functions for the 'spatstat' Package

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Imports spatstat.utils (>= 3.0-5)

Description Extension to the 'spatstat' package, containing interactive graphics capabilities.

License GPL (>= 2)

ByteCompile true

NeedsCompilation no

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Contents

spatstat.gui-package *Interactive Graphics for the 'spatstat' Package*

Description

Extension of the spatstat package, containing interactive graphics.

Details

The main functions are

iplot	Interactive plot of spatial dataset
istat	Interactive statistical summaries

Author(s)

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References

Baddeley, A., Rubak, E. and Turner, R. (2015) *Spatial Point Patterns: Methodology and Applications with R*. Chapman and Hall/CRC Press.

iplot *Point and Click Interface for Displaying Spatial Data*

Description

Plot spatial data with interactive (point-and-click) control over the plot.

Usage

```
 iplot(x, ...)

 ## S3 method for class 'ppp'
iplot(x, ..., xname)

 ## S3 method for class 'linnet'
iplot(x, ..., xname)

 ## S3 method for class 'lpp'
iplot(x, ..., xname)

 ## S3 method for class 'layered'
iplot(x, ..., xname, visible)
```

```
 ## Default S3 method:
iplot(x, ..., xname)
```

Arguments

x	The spatial object to be plotted. An object of class "ppp", "psp", "im", "owin", "linnet", "lpp" or "layered".
...	Ignored.
xname	Optional. Character string to use as the title of the dataset.
visible	Optional. Logical vector indicating which layers of x should initially be turned on (visible).

Details

The function iplot generates a plot of the spatial dataset x and allows interactive control over the appearance of the plot using a point-and-click interface.

The function iplot is generic, with methods for for point patterns (iplot.ppp), layered objects (iplot.layered) and a default method. The default method will handle objects of class "psp", "im" and "owin" at least.

A new popup window is launched. The spatial dataset x is displayed in the middle of the window using the appropriate plot method.

The left side of the window contains buttons and sliders allowing the user to change the plot parameters.

The right side of the window contains navigation controls for zooming (changing magnification), panning (shifting the field of view relative to the data), redrawing and exiting.

If the user clicks in the area where the point pattern is displayed, the field of view will be re-centred at the point that was clicked.

Value

NULL.

Author(s)

Adrian Baddeley <Adrian.Baddeley@curtin.edu.au>, Rolf Turner <r.turner@auckland.ac.nz> and Ege Rubak <rubak@math.aau.dk>.

See Also

istat

Examples

```
if(interactive()) {
   iplot(cells)
   iplot(amacrine)
   iplot(lansing)
   L <- layered(D=distmap(cells), P=cells,
         plotargs=list(list(ribbon=FALSE), list(pch=16)))
   iplot(L)
}
```

`istat` *Point and Click Interface for Exploratory Analysis of Point Pattern*

Description

Compute various summary functions for a point pattern using a point-and-click interface.

Usage

```
istat(x, xname)
```

Arguments

`x`	The spatial point pattern to be analysed. An object of class `"ppp"`.
`xname`	Optional. Character string to use as the title of the dataset.

Details

This command launches an interactive (point-and-click) interface which offers a choice of spatial summary functions that can be applied to the point pattern `x`.

The selected summary function is computed for the point pattern `x` and plotted in a popup window.

The selection of functions includes `Kest`, `Lest`, `pcf`, `Fest` ,`Gest` and `Jest`. For the function `pcf` it is possible to control the bandwidth parameter `bw`.

There is also an option to show simulation envelopes of the summary function.

Value

`NULL`.

Note

Before adjusting the bandwidth parameter `bw`, it is advisable to select *No simulation envelopes* to save a lot of computation time.

Author(s)

Adrian Baddeley <Adrian.Baddeley@curtin.edu.au>, Rolf Turner <r.turner@auckland.ac.nz> and Ege Rubak <rubak@math.aau.dk>.

See Also

iplot

Examples

```
if(interactive()) {
   istat(swedishpines)
}
```

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