biocGraph

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`imageMap-methods` *Write an HTML IMG tag together with a MAP image map.*

Description

Write an HTML IMG tag together with a MAP image map.

Usage

```
  ## S4 method for signature 'Ragraph,connection,list,character'
imageMap(object, con, tags, imgname, width, height, usr = par("usr"))
## S4 method for signature 'graph,connection,list,character'
imageMap(object, con, tags, imgname, width, height)
```

Arguments

`object`	The graph layout for which we want to create an image map.
`con`	Connection to which the image map is written.
`tags`	Named list whose elements are named character vectors. Names must correspond to node names in `object`. See details.
`imgname`	Character. Name of the image file (for example PNG file) that contains the plot.
`width`	Width of the image.
`height`	Height of the image.
`usr`	Numeric vector of length 4. The user coordinates in the plot window that `object` was plotted into.

Details

The most important tags are `TITLE`, `HREF`, and `TARGET`. If the list `tags` contains an element with name `TITLE`, then this must be a named character vector containing the tooltips that are to be displayed when the mouse moves over a node. The names of the nodes are specified in the `names` attribute of the character vector and must match those of `object`.

Similarly, `HREF` may be used to specify hyperlinks that the browser can follow when the mouse clicks on a node, and `TARGET` to specify the target browser window.

Currently, only rectangular regions are implemented; the actual shape of the nodes as specified in `object` is ignored. Also, tags for edges of the graph are currently not supported.

This function is typically used with the following sequence of steps:

1. Create a graph layout with agopen
2. Plot it into a bitmap device, e.g. jpeg or png.
3. Write HTML header.
4. Call the imageMap function.
5. Optionally, write further text into the HTML connection.
6. Close HTML file.

The new API for plotting of graphs now also allows for this alternative procedure:

1. Lay out the graph object foo using layoutGraph
2. render the graph on a bitmap device using renderGraph like this: foo <- renderGraph(foo)
3. Write HTML header.
4. Call the imageMap on the graph object foo.
5. Optionally, write further text into the HTML connection.
6. Close HTML file.

Value

The function is called for its side effect, which is writing text into the connection con.

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See Also

agopen

Examples

```
fhtml = paste(tempfile(), ".html", sep="")
fpng  =paste(tempfile(), ".png", sep="")

if(capabilities()["png"] && interactive()) {

  ## Create a random graph, make tooltips and hyperlinks
  set.seed(123)
  g  = randomEGraph(letters[14:22], 0.2)

  tooltip = paste("This is node", nodes(g))
  url = paste("This could be a link for node", nodes(g))
  names(url) = names(tooltip) = nodes(g)

  ## Open plot device
  width = height = 512
  png(fpng, width=width, height=height)
  par(mai=rep(0,4))

  ## Layout and render
  lg = agopen(g, name="My layout")
  plot(lg)

  ## Write an HTML file with the image map
```

```
   con = file(fhtml, open="wt")
   writeLines("<html><head><title>Click Me</title></head><body>\n", con)

   imageMap(lg, con, fpng, tags=list(HREF=url, TITLE=tooltip), width=width, height=height)

   writeLines("</body></html>", con)
   close(con)
   dev.off()

   cat("Now have a look at file", fhtml, "with your browser.\n")
   browseURL(fhtml)
 }
```

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