Description

Two images are overlaid and a slider is provided to interactively compare the two images in a before-after like fashion. `img1` and `img2` can either be two RasterLayers, two RasterBricks/Stacks or two character strings. In the latter case it is assumed that these point to .png images on the disk.

NOTE: In case you want to include multiple slideviews in one page in a Rmd or flexdashboard we highly recommend using package widgetframe. Also, make sure to use different image names and/or labels for each of the RasterLayers/Bricks/Stacks. Otherwise things will likely not work properly.

This is a modified implementation of http://bl.ocks.org/rfriberg/8327361

Usage

```r
## S4 method for signature 'RasterStackBrick,RasterStackBrick'
slideView(img1, img2,
  label1 = deparse(substitute(img1, env = parent.frame())),
  label2 = deparse(substitute(img2, env = parent.frame())),
  r = 3,
  g = 2, b = 1, na.color = "#BEBEBE", maxpixels = 1e+07, ...)

## S4 method for signature 'RasterLayer,RasterLayer'
slideView(img1, img2,
  label1 = deparse(substitute(img1, env = parent.frame())),
  label2 = deparse(substitute(img2, env = parent.frame())),
  legend = TRUE, col.regions = viridisLite::inferno(256),
  na.color = "#BEBEBE", maxpixels = 1e+07)

## S4 method for signature 'RasterStackBrick,RasterLayer'
slideView(img1, img2,
  label1 = deparse(substitute(img1, env = parent.frame())),
  label2 = deparse(substitute(img2, env = parent.frame())),
  legend = TRUE, r = 3, g = 2, b = 1,
  col.regions = viridisLite::inferno(256), na.color = "#BEBEBE",
  maxpixels = 1e+07, ...)

## S4 method for signature 'RasterLayer,RasterStackBrick'
slideView(img1, img2,
  label1 = deparse(substitute(img1, env = parent.frame())),
  label2 = deparse(substitute(img2, env = parent.frame())),
  legend = TRUE, r = 3, g = 2, b = 1,
  col.regions = viridisLite::inferno(256), na.color = "#BEBEBE",
  maxpixels = 1e+07, ...)

## S4 method for signature 'character,character'
```
slideView(img1, img2,
    label1 = deparse(substitute(img1, env = parent.frame())),
    label2 = deparse(substitute(img2, env = parent.frame())))

## S4 method for signature 'ANY'
slideview(...)

### Arguments

- **img1**: a RasterStack/Brick, RasterLayer or path to a .png file
- **img2**: a RasterStack/Brick, RasterLayer or path to a .png file
- **label1**: slider label for img1 (defaults to object name)
- **label2**: slider label for img2 (defaults to object name)
- **r**: integer. Index of the Red channel, between 1 and nlayers(x)
- **g**: integer. Index of the Green channel, between 1 and nlayers(x)
- **b**: integer. Index of the Blue channel, between 1 and nlayers(x)
- **na.color**: the color to be used for NA pixels
- **maxpixels**: integer > 0. Maximum number of cells to use for the plot. If maxpixels < ncell(x), sampleRegular is used before plotting.
- ... additional arguments passed on to respective functions.
- **legend**: whether to plot legends for the two images (ignored for RasterStacks/*Bricks).
- **col.regions**: color (palette). See levelplot for details.
- **color**: the color palette to be used for visualising RasterLayers

### Details

Compare two images through interactive swiping overlay

For slideView there are a few keyboard shortcuts defined:

- space - toggle antialiasing
- esc - zoom to layer extent
- enter - set zoom to 1
- ctrl - increase panning speed by 10

### Methods (by class)

- **img1 = RasterLayer, img2 = RasterLayer**: for RasterLayers
- **img1 = RasterStackBrick, img2 = RasterLayer**: for RasterStackBrick, RasterLayer
- **img1 = RasterLayer, img2 = RasterStackBrick**: for RasterLayer, RasterStackBrick
- **img1 = character, img2 = character**: for png files
- **ANY**: alias for ease of typing
Author(s)

Tim Appelhans
Stephan Woellauer

Examples

if (interactive()) {
  ### example taken from
  ### aral-sea-is-shrinking-before-our-eyes/story-e6frflp0-1227074133835

  library(jpeg)
  library(raster)

  web_img2000 <- "http://cdn.newsapi.com.au/image/v1/685656a36c0fccccb1bc43c09d96e8fb029"

  jpg2000 <- readJPEG(readBin(web_img2000, "raw", 1e6))

  # Convert imagedata to raster
  rst_blue2000 <- raster(jpg2000[, , 1])
  rst_green2000 <- raster(jpg2000[, , 2])
  rst_red2000 <- raster(jpg2000[, , 3])


  jpg2013 <- readJPEG(readBin(web_img2013, "raw", 1e6))

  # Convert imagedata to raster
  rst_blue2013 <- raster(jpg2013[, , 1])
  rst_green2013 <- raster(jpg2013[, , 2])
  rst_red2013 <- raster(jpg2013[, , 3])

  img2013 <- brick(rst_red2013, rst_green2013, rst_blue2013)

  slideView(img2000, img2013, label1 = "before", label2 = "after")
}
Index

levelplot, 3

slideView, 2
slideview(slideView), 2
slideview, ANY-method (slideView), 2
slideView, character, character-method (slideView), 2
slideView, RasterLayer, RasterLayer-method (slideView), 2
slideView, RasterLayer, RasterStackBrick-method (slideView), 2
slideView, RasterStackBrick, RasterLayer-method (slideView), 2
slideView, RasterStackBrick, RasterStackBrick-method (slideView), 2