

Package ‘colourlovers’

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Title R Client for the COLOURlovers API

Imports XML, jsonlite, httr, png, graphics, utils

Suggests httpptest, testthat, vdiff

Description Provides access to the COLOURlovers <<http://www.colourlovers.com/>> API, which offers color inspiration and color palettes.

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URL <https://github.com/andrewheiss/colourlovers>

BugReports <https://github.com/andrewheiss/colourlovers/issues>

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colourlovers-package *R client for the COLOURlovers API*

Description

Provides access to the COLOURlovers API for accessing colors and color palettes for use in R graphics.

Author(s)

Thomas J. Leeper

clcolors *Retrieve color or colors*

Description

Retrieve a color or set of colors from the COLOURlovers API.

Usage

```
clcolors(set = NULL, ..., fmt = "xml")
```

```
clcolor(hex, fmt = "xml")
```

Arguments

set	Optionally, a subset of COLOURlovers colors. Allowed values are “new”, “top”, and “random”.
...	A named list of parameters passed to the API request. Allowed parameters are lover, hueRange, briRange, keywords, keywordExact, orderCol, sortBy, numResults, and resultOffset. Specifying orderCol overrules any argument to set. See details.
fmt	A format for the API response, one of “xml” (the default) or “json”. This has essentially no effect on function behavior. @return A list of class “clcolor”. This should be the same regardless of the value of fmt.
hex	The six-character hexadecimal representation of a single color.

Details

Retrieve details about a color our set of colors.

Specifying named arguments to `...` allows the user to request a specific response, as follows:

- `lover`: A character string containing a COLOURlovers username.
- `hueRange`: A two-element numeric vector containing the upper and lower bounds of a hue range. Allowed values are between 0 and 359, exclusive.
- `briRange`: A two-element numeric vector containing the upper and lower bounds of a brightness range. Allowed values are between 0 and 99, exclusive.
- `keywords`: A character string containing one or more keywords to search by.
- `keywordExact`: A boolean indicating search on keywords should be exact (TRUE) or not (FALSE, the API default).
- `orderCol`: A character string containing a sort criterion. One of “dateCreated”, “score”, “name”, “numVotes”, “numViews”.
- `sortBy`: A character string containing either “ASC” (for ascending by the `orderCol` criterion, the default) or “DSC” (for descending).
- `numResults`: A numeric value indicating the number of results to return, with a maximum of 100. Default is 20.
- `resultOffset`: A numeric value indicating the page of results to return, with page size specified in the `numResults` argument.

Author(s)

Thomas J. Leeper

References

<http://www.colourlovers.com/api/#colors>

Examples

```
## Not run:  
# Get a random color  
clcolors('random')  
  
# Get a single color  
clcolor('6B4106')  
  
# Plot a single color  
clcolor(rgb(0,0,1), fmt = 'json')  
  
## End(Not run)
```

 c lovers

Retrieve a user (lover)

Description

Retrieve a lover (user) or set of lovers from the COLOURlovers API.

Usage

```
c lovers(set = NULL, ..., fmt = "xml")
```

```
c lover(user, comments = FALSE, fmt = "xml")
```

Arguments

set	Optionally, a subset of COLOURlovers palettes. Allowed values are “new” and “top”.
...	A named list of parameters passed to the API request. Allowed parameters are orderCol, sortBy, numResults, and resultOffset. Specifying orderCol overrides any argument to set. See details.
fmt	A format for the API response, one of “xml” (the default) or “json”. This has essentially no effect on function behavior.
user	The COLOURlovers username for a specific user.
comments	A boolean indicating whether to include the last ten comments for the user. Default is FALSE.

Details

Retrieve details about a COLOURlovers user or users.

Specifying named arguments to ... allows the user to request a specific response, as follows:

- orderCol: A character string containing a sort criterion. One of “dateCreated”, “score”, “name”, “numVotes”, “numViews”.
- sortBy: A character string containing either “ASC” (for ascending by the orderCol criterion, the default) or “DSC” (for descending).
- numResults: A numeric value indicating the number of results to return, with a maximum of 100. Default is 20.
- resultOffset: A numeric value indicating the page of results to return, with page size specified in the numResults argument.

Value

A list of class “c lover”, including details about one or more users. This should be the same regardless of the value of fmt.

Author(s)

Thomas J. Leeper

References

<http://www.colourlovers.com/api/#lovers>

Examples

```
## Not run:
# Retrieve top users
cllovers(set = 'top', fmt = 'json')

# Retrieve a single user
cllover('COLOURlovers', fmt = 'json')

## End(Not run)
```

clpalettes

Retrieve color palette or palettes

Description

Retrieve a color palette or set of palletes from the COLOURlovers API.

Usage

```
clpalettes(set = NULL, ..., fmt = "xml")

clpalette(id, widths = FALSE, fmt = "xml")
```

Arguments

set	Optionally, a subset of COLOURlovers palettes. Allowed values are “new”, “top”, and “random”.
...	A named list of parameters passed to the API request. Allowed parameters are lover, hueOption, hex, hex_logic, keywords, keywordExact, orderCol, sortBy, numResults, and resultOffset. Specifying orderCol overrules any argument to set. See details.
fmt	A format for the API response, one of “xml” (the default) or “json”. This has essentially no effect on function behavior.
id	The COLOURlovers id (an integer) for a specific palette.
widths	A boolean indicating whether to include the color widths for the palette. Default is FALSE.

Details

Retrieve details about a palette or set of palettes.

Specifying named arguments to `. . .` allows the user to request a specific response, as follows:

- `lover`: A character string containing a COLOURlovers username.
- `hueOption`: A character vector containing one or more named hues to search by. Allowed values are: “red”, “orange”, “yellow”, “green”, “aqua”, “blue”, “violet”, “fuchsia”. Any other values other than these named colors will be ignored.
- `hex`: A character vector containing up to five colors specified as hexadecimal representation (with or without a leading hash symbol). Excess colors will be ignored.
- `hex_logic`: A character value containing either “AND” (the default) or “OR”, for whether the values in `hex` should be searched for with a boolean AND versus OR logic. Specifying “AND” will only return palettes with all requested colors.
- `keywords`: A character string containing one or more keywords to search by.
- `keywordExact`: A boolean indicating search on keywords should be exact (TRUE) or not (FALSE, the API default).
- `orderCol`: A character string containing a sort criterion. One of “dateCreated”, “score”, “name”, “numVotes”, “numViews”.
- `sortBy`: A character string containing either “ASC” (for ascending by the `orderCol` criterion, the default) or “DSC” (for descending).
- `numResults`: A numeric value indicating the number of results to return, with a maximum of 100. Default is 20.
- `resultOffset`: A numeric value indicating the page of results to return, with page size specified in the `numResults` argument.

Value

A list of class “cIpalette”. This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

References

<http://www.colourlovers.com/api/#palettes>

Examples

```
## Not run:
# Get a random palette
cIpalettes('random')

# Download top palettes
cIpalettes('top', fmt = 'json')

# Plot a single palette
```

```
pid <- '113451'
p <- clpalette(pid, fmt = 'json')
plot(p)

## End(Not run)
```

clpatterns *Retrieve pattern or patterns*

Description

Retrieve a pattern or set of patterns from the COLOURlovers API.

Usage

```
clpatterns(set = NULL, ..., fmt = "xml")

clpattern(id, fmt = "xml")
```

Arguments

set	Optionally, a subset of COLOURlovers patterns. Allowed values are “new”, “top”, and “random”.
...	A named list of parameters passed to the API request. Allowed parameters are lover, hueOption, hex, hex_logic, keywords, keywordExact, orderCol, sortBy, numResults, and resultOffset. Specifying orderCol overrules any argument to set. See details.
fmt	A format for the API response, one of “xml” (the default) or “json”. This has essentially no effect on function behavior.
id	The COLOURlovers id (an integer) for a specific pattern.

Details

Retrieve details about a pattern or set of patterns.

Specifying named arguments to ... allows the user to request a specific response, as follows:

- lover: A character string containing a COLOURlovers username.
- hueOption: A character vector containing one or more named hues to search by. Allowed values are: “red”, “orange”, “yellow”, “green”, “aqua”, “blue”, “violet”, “fuchsia”. Any other values other than these named colors will be ignored.
- hex: A character vector containing up to five colors specified as hexadecimal representation (with or without a leading hash symbol). Excess colors will be ignored.
- hex_logic: A character value containing either “AND” (the default) or “OR”, for whether the values in hex should be searched for with a boolean AND versus OR logic. Specifying “AND” will only return palettes with all requested colors.

- `keywords`: A character string containing one or more keywords to search by.
- `keywordExact`: A boolean indicating search on keywords should be exact (TRUE) or not (FALSE, the API default).
- `orderCol`: A character string containing a sort criterion. One of “dateCreated”, “score”, “name”, “numVotes”, “numViews”.
- `sortBy`: A character string containing either “ASC” (for ascending by the `orderCol` criterion, the default) or “DSC” (for descending).
- `numResults`: A numeric value indicating the number of results to return, with a maximum of 100. Default is 20.
- `resultOffset`: A numeric value indicating the page of results to return, with page size specified in the `numResults` argument.

Value

A list of class “clpattern”. This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

References

<http://www.colourlovers.com/api/#patterns>

Examples

```
## Not run:  
# Get a random pattern  
clpatterns('random')  
  
# Plot a single pattern  
p <- clpattern('1451', fmt = 'json')  
plot(p)  
  
## End(Not run)
```

clpng

Plot a COLOURlovers object

Description

Plot a color, palette, or pattern color pie or PNG image in a plotting device

Usage

```
clpng(x, ask = TRUE, ...)  
  
clpie(x, ask = TRUE, ...)  
  
## S3 method for class 'clcolor'  
plot(x, type = "png", ...)
```

Arguments

x	A colourlovers color, palette, or pattern object.
ask	A boolean indicating if plots should be presented interactively or all at once (default is FALSE).
...	Ignored.
type	One of “png” (the default) or “pie”.

Details

Plot a colourlovers PNG image in a new plotting window.

Value

The x object is invisibly returned.

Author(s)

Thomas J. Leeper

Examples

```
## Not run:  
# Plot a color clpng  
co <- clcolor(rgb(0, 0, 1))  
plot(co)  
  
# Plot a pattern clpng  
p <- clpattern('1451')  
plot(p)  
clpng(p)  
  
# Plot colors from a palette  
p <- clpalette('113451')  
plot(p, type = 'pie')  
clpie(p)  
  
# Plot multiple palettes (interactively)  
p <- clpalettes('top')  
plot(p) # PNG images  
plot(p, type = 'pie') # pie chart swatches
```

```
## End(Not run)
```

clquery

Execute an API Query

Description

Primarily an internal function for executing API calls.

Usage

```
clquery(type, set = NULL, query = NULL, fmt = "xml", ...)
```

Arguments

type	An API type. One of “colors”, “palettes”, “patterns”, “lovers”, or “stats”.
set	A further subtype of the API type.
query	An optional character string specifying additional query parameters.
fmt	A format for the API response, one of “xml” (the default) or “json”.
...	Ignored.

Details

Primarily for internal use.

Value

A list reflecting the API response. This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

clstats	<i>Retrieve basic statistics from COLOURlovers.</i>
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Description

Retrieve basic statistics from the COLOURlovers API.

Usage

```
clstats(type, fmt = "xml")
```

Arguments

type	An API type. One of “colors”, “palettes”, “patterns”, or “lovers”.
fmt	A format for the API response, one of “xml” (the default) or “json”. This has essentially no effect on function behavior.

Details

Retrieve total numbers of colors, palettes, patterns, or lovers.

Value

A numeric value of class “clstats”. This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

References

<http://www.colourlovers.com/api/#stats>

Examples

```
## Not run:  
clstats('colors')  
clstats('palettes')  
clstats('patterns')  
clstats('lovers')  
  
## End(Not run)
```

swatch

Extract colors from an object

Description

Extract a list of colors from a COLOURlovers object

Usage

```
swatch(x, ...)
```

Arguments

x	A colourlovers color, palette, or pattern object.
...	Ignored.

Details

Extract color(s) from a colourlovers object.

Value

A list of character vectors containing hexadecimal representations of colors.

Author(s)

Thomas J. Leeper

Examples

```
## Not run:  
# Get top colors  
swatch(clcolors('top'))  
  
# Get colors from a specific palette  
swatch(clpalette('113451'))  
  
# Get colors from specific pattern  
swatch(clpattern('1451'))  
  
## End(Not run)
```

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