

Package ‘colourlovers’

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Title R Client for the COLOURlovers API

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Suggests testthat

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/leeper/colourlovers>

BugReports <https://github.com/leeper/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)

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References

[COLOURlovers](#)

[COLOURlovers API](#)

clcolors *Retrieve color or colors*

Description

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

Usage

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

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

Arguments

hex	The six-character hexadecimal representation of a single color.
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, keywordsExact, 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.

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.

keywordsExact: 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 “clcolor”. This should be the same regardless of the value of fmt.

Author(s)

Thomas J. Leeper

References

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

Examples

```
e <- function(e) NULL # function for tryCatch to fail in examples

# get a random color
tryCatch( clcolors('random'), error = e)

# get a single color
tryCatch( clcolor('6B4106'), error = e)

# plot a single color clpng
co <- tryCatch( clcolor(rgb(0,0,1), fmt='json'), error = e)
if(!is.null(co)) plot(co)
```

 c lovers

 Retrieve a user (lover)

Description

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

Usage

```
clover(user, comments = FALSE, fmt = 'xml')
```

```
clovers(set = NULL, ..., fmt = 'xml')
```

Arguments

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.
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.

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 “clove”, 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

```
e <- function(e) NULL # function for tryCatch to fail in examples

# retrieve top users
tryCatch( cllovers(set='top', fmt='json'), error = e)

# retrieve a single user
tryCatch( cllover('COLOURlovers', fmt='json'), error = e)
```

clpalettes	<i>Retrieve color palette or palettes</i>
------------	---

Description

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

Usage

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

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

Arguments

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.
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, keywordsExact, 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.

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.

`keywordsExact`: 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 “clpalette”. This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

References

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

Examples

```
e <- function(e) NULL # function for tryCatch to fail in examples

# get a random palette
tryCatch( clpalettes('random'), error = e)

# download top palettes
tryCatch( clpalettes('top', fmt='json'), error = e)
```

```
# plot at a single palette
pid <- '113451'
p <- tryCatch( clpalette(pid, fmt='json'), error = e)
if(!is.null(p)) plot(p)
```

clpatterns

Retrieve pattern or patterns

Description

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

Usage

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

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

Arguments

id	The COLOURlovers id (an integer) for a specific pattern.
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, keywordsExact, 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.

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.

keywordsExact: 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

```
e <- function(e) NULL # function for tryCatch to fail in examples

# get a random pattern
tryCatch( clpatterns('random'), error = e)

# plot at a single pattern
p <- tryCatch( clpattern('1451', fmt='json'), error = e)
if(!is.null(p)) plot(p)
```

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

Retrieve basic statistics from COLOURlovers.

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 list of class “clstats” containing at least one named element (“total”). This should be the same regardless of the value of `fmt`.

Author(s)

Thomas J. Leeper

References

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

Examples

```
e <- function(e) NULL # function for tryCatch to fail in examples

tryCatch( clstats('colors'), error = e)
tryCatch( clstats('palettes'), error = e)
tryCatch( clstats('patterns'), error = e)
tryCatch( clstats('lovers'), error = e)
```

plot

Plot a COLOURlovers object

Description

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

Usage

```
## S3 method for class 'clcolor'
plot(x, type='png', ...)
## S3 method for class 'clcolors'
plot(x, type='png', ...)
## S3 method for class 'clpalette'
plot(x, type='png', ...)
## S3 method for class 'clpalettes'
plot(x, type='png', ...)
## S3 method for class 'clpattern'
plot(x, type='png', ...)
## S3 method for class 'clpatterns'
plot(x, type='png', ...)

clpng(x, ...)

clpie(x, ...)
```

Arguments

x	A colourlovers color, palette, or pattern object.
type	One of “png” (the default) or “pie”.
...	Ignored.

Details

Plot a colourlovers PNG image in a new plotting window.

Value

The x object is invisibly returned.

Author(s)

Thomas J. Leeper

Examples

```
e <- function(e) NULL # function for tryCatch to fail in examples

# plot a color clpng
co <- tryCatch( clcolor(rgb(0,0,1)), error = e)
if(!is.null(co)) plot(co)

# plot a pattern clpng
p <- tryCatch( clpattern('1451'), error = e)
if(!is.null(p)) plot(p)
if(!is.null(p)) clpng(p)

# plot colors from a palette
p <- tryCatch( clpalette('113451'), error = e)
if(!is.null(p)) plot(p, type='pie')
if(!is.null(p)) clpie(p)

## Not run:
# plot multiple palettes (interactively)
p <- tryCatch( clpalettes('top'), error = e)
if(!is.null(p)) plot(p) # PNG images
if(!is.null(p)) plot(p, type='pie') # pie chart swatches

## 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

```
e <- function(e) NULL # function for tryCatch to fail in examples

# get top colors
tryCatch( swatch(clcolors('top')), error = e)

# get colors from a specific palette
tryCatch( swatch(clpalette('113451')), error = e)

# get colors from specific pattern
tryCatch( swatch(clpattern('1451')), error = e)
```

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