Package ‘colourlovers’

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colourlovers-package  

*R client for the COLOURlovers API*

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**Description**

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

**Author(s)**

Thomas J. Leeper

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**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

```r
## Not run:
# Get a random color
cloclors('random')

# Get a single color
cloclor('6B4106')

# Plot a single color
cloclor(rgb(0,0,1), fmt = 'json')

## End(Not run)
```
cllovers

Retrieve a user (lover)

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

Usage
cllovers(set = NULL, ..., fmt = "xml")
cllover(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` 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.
- **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 “cllover”, including details about one or more users. This should be the same regardless of the value of `fmt`. 
clpalettes

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)

---

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 “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

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

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

# Plot a single palette
```
clpatterns

```
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**


**Examples**

```r
## 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**

\[ \text{clpng}(x, \ ask = \TRUE, \ldots) \]

\[ \text{clpie}(x, \ ask = \TRUE, \ldots) \]

\[ \# \ S3 \ method \ for \ class \ 'clcolor' \]

\[ \text{plot}(x, \ type = \"png\", \ldots) \]

**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**

\[ \# \ Not \ run: \]
\[ \# \ Plot \ a \ color \ clpng \]
\[ \text{co} \leftarrow \text{clcolor}(\text{rgb}(0, \ 0, \ 1)) \]
\[ \text{plot(co)} \]

\[ \# \ Plot \ a \ pattern \ clpng \]
\[ \text{p} \leftarrow \text{clpattern}(\text{'1451'}) \]
\[ \text{plot(p)} \]
\[ \text{clpng(p)} \]

\[ \# \ Plot \ colors \ from \ a \ palette \]
\[ \text{p} \leftarrow \text{clpalette}(\text{'113451'}) \]
\[ \text{plot(p, \ type = \text{'pie'})} \]
\[ \text{clpie(p)} \]

\[ \# \ Plot \ multiple \ palettes \ (interactively) \]
\[ \text{p} \leftarrow \text{clpalettes('top')} \]
\[ \text{plot(p)} \# \ PNG \ images \]
\[ \text{plot(p, \ type = \text{'pie'})} \# \ pie \ chart \ swatches \]
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 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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