

Package ‘plotcli’

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Title Command Line Interface Plotting

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Description The 'plotcli' package provides terminal-based plotting in R.

It supports colored scatter plots, line plots, bar plots, and box plots. The package allows users to customize plot appearance, add titles, labels, ticks, and legends, and output the plot as a text-based visualization.

License LGPL-3

URL <https://github.com/cheuerde/plotcli>

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<code>+.plotcli</code>	<i>Overload the "+" operator for plotcli objects</i>
------------------------	--

Description

This function overloads the "+" operator to merge two plotcli objects.

Usage

```
## S3 method for class 'plotcli'  
plot1 + plot2
```

Arguments

- plot1 A plotcli object to be merged.
- plot2 A plotcli object to be merged.

Value

A new plotcli object containing the combined data from both objects.

bresenham	<i>Bresenham's line algorithm</i>
-----------	-----------------------------------

Description

This function generates a list of points that form a line between two given points using Bresenham's line algorithm.

Usage

```
bresenham(x0, y0, x1, y1)
```

Arguments

x0	The x-coordinate of the starting point.
y0	The y-coordinate of the starting point.
x1	The x-coordinate of the ending point.
y1	The y-coordinate of the ending point.

Value

A list of points that form a line between the two given points.

Examples

```
bresenham(0, 0, 5, 5)
bresenham(0, 0, -5, -5)
```

cat_plot_matrix	<i>Print plot matrix</i>
-----------------	--------------------------

Description

This function prints a plot matrix to the console.

Usage

```
cat_plot_matrix(plot_matrix)
```

Arguments

plot_matrix	The plot matrix to be printed.
-------------	--------------------------------

Examples

```
cat_plot_matrix(matrix(c("a", "b", "c", "d"), nrow = 2, ncol = 2))
```

cbind.plotcli	<i>Generic function for combining plotcli objects horizontally</i>
---------------	--

Description

Generic function for combining plotcli objects horizontally

Usage

```
## S3 method for class 'plotcli'
cbind(..., deparse.level = 1)
```

Arguments

... plotcli objects to be combined.
 deparse.level The deparsing level for the arguments.

Value

A combined plot matrix.

cbind_plots	<i>Combine plot matrices horizontally</i>
-------------	---

Description

This function combines multiple plot matrices horizontally, centering them vertically.

Usage

```
cbind_plots(...)
```

Arguments

... A list of plot matrices to be combined.

Value

A combined plot matrix.

format_four_chars	<i>Format number to four characters</i>
-------------------	---

Description

This function formats a number to a string of exactly four characters.

Usage

```
format_four_chars(num)
```

Arguments

num	The number to be formatted.
-----	-----------------------------

Value

A string representation of the number with exactly four characters.

Examples

```
format_four_chars(123)
format_four_chars(-12.34)
```

get_data_subset	<i>Get data subset for a specific geom</i>
-----------------	--

Description

This function returns a subset of the data for a specific geom.

Usage

```
get_data_subset(geom_name, data, aes, p_build)
```

Arguments

geom_name	The name of the geom for which the data subset is needed.
data	The data to be subsetted.
aes	The aesthetic mappings for the geom.
p_build	The ggplot build object.

Value

A list containing the data subset for the specified geom.

<code>get_term_colors</code>	<i>Get terminal colors</i>
------------------------------	----------------------------

Description

This function returns a vector of terminal colors.

Usage

```
get_term_colors(n = NULL)
```

Arguments

`n` The number of colors to return.

Value

A vector of terminal colors.

Examples

```
get_term_colors(5)
get_term_colors(10)
```

<code>ggplotcli</code>	<i>ggplotcli - Render ggplot objects in the terminal</i>
------------------------	--

Description

This function takes a ggplot object and renders it in the terminal using ASCII or Braille characters.

Usage

```
ggplotcli(ggplot_obj, plot_width = 80, plot_height = 40, braille = TRUE)
```

Arguments

<code>ggplot_obj</code>	A ggplot object to be rendered in the terminal.
<code>plot_width</code>	Width of the terminal plot in characters (default: 80).
<code>plot_height</code>	Height of the terminal plot in characters (default: 40).
<code>braille</code>	Use Braille characters for higher resolution (default: TRUE).

Value

A TerminalPlot object.

is_braille	<i>Check if a character is a Braille character</i>
------------	--

Description

This function checks if a given character is a Braille character.

Usage

```
is_braille(char)
```

Arguments

char	The character to be checked.
------	------------------------------

Value

A boolean value indicating whether the character is a Braille character or not.

Examples

```
is_braille("A")
```

make_colored	<i>Make colored text</i>
--------------	--------------------------

Description

This function applies a specified color to a given text string.

Usage

```
make_colored(x, color = NULL)
```

Arguments

x	The text string to be colored.
color	The color to be applied to the text. If NULL, the color codes will be removed.

Value

A colored text string or a text string with color codes removed.

Examples

```
make_colored("Hello, world!", "blue")  
make_colored("Hello, world!", NULL)
```

make_unique_names	<i>Make unique names</i>
-------------------	--------------------------

Description

This function takes a vector of names and ensures that each name is unique by appending a number if necessary.

Usage

```
make_unique_names(names)
```

Arguments

names	A character vector of names.
-------	------------------------------

Value

A character vector of unique names.

Examples

```
make_unique_names(c("apple", "apple", "banana", "apple"))
```

normalize_data	<i>Normalize data</i>
----------------	-----------------------

Description

This function normalizes the given data to a specified plot range.

Usage

```
normalize_data(data, data_min, data_max, plot_range)
```

Arguments

data	The data to be normalized.
data_min	The minimum value of the data.
data_max	The maximum value of the data.
plot_range	The range to normalize the data to.

Value

The normalized data.

Examples

```
normalize_data(c(1, 2, 3, 4, 5), 1, 5, 10)
normalize_data(c(10, 20, 30, 40, 50), 10, 50, 100)
```

pclub

*Short version of plotcli_bar***Description**

Short version of plotcli_bar function.

Usage

```
pclub(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "barplot",
  ...
)
```

Arguments

y	A numeric vector of values
x	A vector of categories
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "y")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "barplot")
...	Additional arguments passed to the plotcli\$new() function

Examples

```
x <- 1:5
y <- c(10, 15, 8, 12, 6)
pclub(x, y)
```

pclibx

Short version of *plotcli_box*

Description

Short version of `plotcli_box` function.

Usage

```
pclibx(
  y,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "boxplot",
  ...
)
```

Arguments

<code>y</code>	A list of numeric vectors of values
<code>plot_width</code>	Width of the plot (default: 80)
<code>plot_height</code>	Height of the plot (default: 40)
<code>x_label</code>	Label for the x-axis (default: "x")
<code>y_label</code>	Label for the y-axis (default: "y")
<code>color</code>	Color of the plot elements (default: NULL)
<code>braille</code>	Use Braille characters for the plot (default: TRUE)
<code>name</code>	Name of the plot element (default: "boxplot")
<code>...</code>	Additional arguments passed to the <code>plotcli\$new()</code> function
<code>x</code>	A vector of categories

Examples

```
y <- rnorm(50, mean = 0)
pclib(y)
```

pclid	<i>Short version of plotcli_density</i>
-------	---

Description

Short version of plotcli_density function.

Usage

```
pclid(
  x,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "Density",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "density",
  ...
)
```

Arguments

x	A numeric vector of values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "Density")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "density")
...	Additional arguments passed to the plotcli\$new() function

Examples

```
x <- rnorm(100)
pclid(x)
```

pclih

Short version of *plotcli_histogram*

Description

Short version of `plotcli_histogram` function.

Usage

```
pclih(
  x,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "Frequency",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  bin_width = NULL,
  ylim = NULL,
  name = "histogram",
  ...
)
```

Arguments

<code>x</code>	A numeric vector of values
<code>plot_width</code>	Width of the plot (default: 80)
<code>plot_height</code>	Height of the plot (default: 40)
<code>x_label</code>	Label for the x-axis (default: "x")
<code>y_label</code>	Label for the y-axis (default: "Frequency")
<code>color</code>	Color of the plot elements (default: NULL)
<code>braille</code>	Use Braille characters for the plot (default: TRUE)
<code>bin_width</code>	Width of the bins (default: NULL)
<code>ylim</code>	y limits (default: NULL)
<code>name</code>	Name of the plot element (default: "histogram")
<code>...</code>	Additional arguments passed to the <code>plotcli\$new()</code> function

Examples

```
x <- rnorm(100)
pclih(x)
```

pclil

Short version of plotcli_line

Description

Short version of plotcli_line function.

Usage

```

pclil(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "line",
  ...
)
```

Arguments

y	A numeric vector of y values
x	A numeric vector of x values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "y")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "line")
...	Additional arguments passed to the plotcli\$new() function

Examples

```

x <- 1:10
y <- x^2
pclil(x, y)
```

pclis

Short version of plotcli_scatter

Description

Short version of plotcli_scatter function.

Usage

```
pclis(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "scatter",
  ...
)
```

Arguments

y	A numeric vector of y values
x	A numeric vector of x values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "y")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "scatter")
...	Additional arguments passed to the plotcli\$new() function

Examples

```
x <- rnorm(100)
y <- rnorm(100)
pclis(x, y)
```

plotcli

*plotcli R6 Class***Description**

plotcli R6 Class

plotcli R6 Class

Details

This class provides a set of methods to create and customize command-line plots using R6. It supports various plot types, such as scatter, line, bar, and box plots, and allows customization of plot elements, such as title, axis labels, ticks, and legend.

Usage

```
plotcli <- plotcli$new()
plotcli$add_data(data)
plotcli$print_plot()
```

Methods

initialize() Initializes the PlotCLI object with parameters.

initialize_plot_matrix() Initializes the plot matrix with the plot canvas.

print() Default print method for PlotCLI object.

add_row() Adds a single row to the plot matrix.

add_col() Adds a single column to the plot matrix.

add_borders() Adds borders around the plot canvas.

add_row_col_index() Adds row and column index to the plot matrix.

add_title() Adds a title to the plot matrix.

add_y_ticks() Adds y-axis tick labels to the plot matrix.

add_y_label() Adds a y-axis label to the plot matrix.

add_x_ticks() Adds x-axis tick labels to the plot matrix.

add_x_label() Adds an x-axis label to the plot matrix.

add_legend() Adds a legend to the plot matrix.

add_data() Adds data to the object.

get_min_max() Gets minimum and maximum values for x and y.

remove_out_of_range_data() Removes out of range data points if xlim and ylim were given.

draw_scatter_plot() Draws a scatter plot on the plot canvas.

draw_line_plot() Draws a line plot on the plot canvas.

draw_barplot() Draws a bar plot on the plot canvas.

draw_barplot_braille() Draws a bar plot with braille characters on the plot canvas.

draw_boxplot() Draws a box plot on the plot canvas.

print_plot() Assembles all plot elements and prints the plot to the console.

Public fields

`plot_width` The width of the plot
`plot_height` The height of the plot
`plot_canvas` The canvas for drawing the plot
`plot_matrix` The matrix containing the entire plot, including borders, labels, and title
`data` A list containing the data sets to be plotted
`title` The title of the plot
`x_label` The label for the x-axis
`y_label` The label for the y-axis
`ylim` The limits for the y-axis
`xlim` The limits for the x-axis
`x_min` The minimum value of the x-axis
`x_max` The maximum value of the x-axis
`y_min` The minimum value of the y-axis
`y_max` The maximum value of the y-axis
`plot_matrix_canvas_row_start` The starting row of the plot canvas within the plot matrix
`plot_matrix_canvas_col_start` The starting column of the plot canvas within the plot matrix
`is_boxplot` A logical value indicating if the plot is a boxplot
`draw_legend` A logical value indicating if the legend should be drawn

Methods**Public methods:**

- `plotcli$new()`
- `plotcli$initialize_plot_matrix()`
- `plotcli$print()`
- `plotcli$add_row()`
- `plotcli$add_col()`
- `plotcli$add_borders()`
- `plotcli$add_row_col_index()`
- `plotcli$add_title()`
- `plotcli$add_y_ticks()`
- `plotcli$add_y_label()`
- `plotcli$add_x_ticks()`
- `plotcli$add_x_label()`
- `plotcli$add_legend()`
- `plotcli$add_data()`
- `plotcli$get_min_max()`
- `plotcli$remove_out_of_range_data()`
- `plotcli$draw_scatter_plot()`

- `plotcli$draw_line_plot()`
- `plotcli$draw_barplot()`
- `plotcli$draw_barplot_braille()`
- `plotcli$draw_boxplot()`
- `plotcli$draw_colors()`
- `plotcli$draw_plot()`
- `plotcli$make_plot_matrix()`
- `plotcli$export_plot_matrix()`
- `plotcli$print_plot()`
- `plotcli$merge()`
- `plotcli$clone()`

Method `new()`: Initialize object

Usage:

```
plotcli$new(  
  plot_width = 60,  
  plot_height = 20,  
  x_label = "x",  
  y_label = "y",  
  ylim = NULL,  
  xlim = NULL,  
  title = NULL,  
  is_boxplot = FALSE,  
  draw_legend = TRUE  
)
```

Arguments:

`plot_width` integer, width of the plot canvas

`plot_height` integer, height of the plot canvas

`x_label` character, label for the x-axis

`y_label` character, label for the y-axis

`ylim` numeric vector, limits for the y-axis

`xlim` numeric vector, limits for the x-axis

`title` character, title of the plot

`is_boxplot` logical, whether the plot is a boxplot

`draw_legend` logical, whether to draw the legend This function initializes the plot matrix based on the plot canvas.

Method `initialize_plot_matrix()`: Initialize the plot matrix

Usage:

```
plotcli$initialize_plot_matrix()
```

Arguments:

`plot_width` The width of the plot

`plot_height` The height of the plot

Returns: A plot matrix object

Method print(): Default print method for plotcli object

Usage:

```
plotcli$print(...)
```

Arguments:

... Additional arguments passed to the print method

Returns: The plotcli object, invisibly

Method add_row(): Add a single row to the plot matrix

Usage:

```
plotcli$add_row(bottom = FALSE)
```

Arguments:

bottom logical, if TRUE, add row to the bottom of the matrix, otherwise add to the top (default: FALSE)

Method add_col(): Add a single column to the plot matrix

Usage:

```
plotcli$add_col()
```

Method add_borders(): Add borders to the plot matrix

Usage:

```
plotcli$add_borders()
```

Method add_row_col_index(): Add row and column index to the plot matrix Add title to the plot matrix

Usage:

```
plotcli$add_row_col_index()
```

Method add_title():

Usage:

```
plotcli$add_title()
```

Arguments:

title character, title of the plot Add y-ticks label to the plot matrix

Method add_y_ticks():

Usage:

```
plotcli$add_y_ticks(n_ticks = 5)
```

Arguments:

n_ticks numeric, number of ticks Add y-axis label to the plot matrix

Method add_y_label(): Add a y-axis label to the plot matrix

Usage:

```
plotcli$add_y_label(y_label = self$y_label)
```

Arguments:

y_label character, the y-axis label to be added Add x-ticks label to the plot matrix

Method add_x_ticks():

Usage:

```
plotcli$add_x_ticks(n_ticks = 5)
```

Arguments:

n_ticks numeric, number of ticks Add x-axis label to the plot matrix

Method add_x_label(): Add x-axis label to the plot matrix

Usage:

```
plotcli$add_x_label(x_label = self$x_label)
```

Arguments:

x_label x label Add legend to the plot matrix

Method add_legend(): Add legend to the plot matrix Add data to the object.

Usage:

```
plotcli$add_legend()
```

Method add_data():

Usage:

```
plotcli$add_data(data)
```

Arguments:

data list, list with elements: x, y, type, color, braille, name Get minimum and maximum values for x and y

Method get_min_max(): Calculate the minimum and maximum values for x and y Function to remove out of range data points if xlim and ylim were given

Usage:

```
plotcli$get_min_max()
```

Method remove_out_of_range_data(): Remove data points that are outside the specified xlim and ylim Draw a scatter plot to the plot canvas.

Usage:

```
plotcli$remove_out_of_range_data()
```

Method draw_scatter_plot(): Draw a scatter plot of the specified data set on the plot canvas.

Usage:

```
plotcli$draw_scatter_plot(set_idx)
```

Arguments:

set_idx numeric, the data element index to be drawn Draw a line plot to the plot canvas.

Method draw_line_plot():

Usage:

```
plotcli$draw_line_plot(set_idx)
```

Arguments:

set_idx numeric, the data element index to be drawn Draw a barplot to the plot canvas.

Method draw_barplot():*Usage:*

```
plotcli$draw_barplot(set_idx)
```

Arguments:

set_idx numeric, the data element index to be drawn Draw a barplot to the plot canvas with braille characters.

Method draw_barplot_braille():*Usage:*

```
plotcli$draw_barplot_braille(set_idx)
```

Arguments:

set_idx numeric, the data element index to be drawn Draw a boxplot to the plot canvas.

Method draw_boxplot():*Usage:*

```
plotcli$draw_boxplot(set_idx)
```

Arguments:

set_idx numeric, the data element index to be drawn Draw colors to the canvas

Method draw_colors(): In the draw_ functions we have been keeping track of the locations of the colored matrix elements. These are now being colored. Draw the different plots types from all data elements to the canvas

Usage:

```
plotcli$draw_colors()
```

Method draw_plot(): This function iterates through all data elements and calls the appropriate draw_ function based on the plot type (scatter, line, boxplot, or barplot). Make plot matrix: assembles all plot elements (canvas + borders + title + axes + legend)

Usage:

```
plotcli$draw_plot()
```

Method make_plot_matrix(): This function assembles all plot elements (canvas + borders + title + axes + legend) and creates the final plot matrix. Export plot matrix

Usage:

```
plotcli$make_plot_matrix()
```

Method export_plot_matrix(): This function exports the plot matrix.

Usage:

```
plotcli$export_plot_matrix()
```

Returns: The plot matrix. Main plotting function: assembles all plot elements (canvas + borders + title + axes + legend) and prints the plot by 'cat'ing the plot matrix to the console.

Method `print_plot()`: This function assembles all plot elements (canvas + borders + title + axes + legend) and prints the final plot by 'cat'ing the plot matrix to the console. Merge two plotcli objects

This method combines the data from two plotcli objects into a single plotcli object. It takes the maximum of the `plot_width` and `plot_height`, combines the titles, and sets the `xlim` and `ylim` to the minimum and maximum values of both objects.

Usage:

```
plotcli$print_plot()
```

Method `merge()`:

Usage:

```
plotcli$merge(other)
```

Arguments:

`other` A plotcli object to be merged with the current object.

Returns: A new plotcli object containing the combined data from both objects.

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
plotcli$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
# Create a new plotcli object
plotcli <- plotcli$new()

# Add data for a scatter plot
plotcli$add_data(list(x = 1:10, y = rnorm(10), type = "scatter", color = "red"))

# Print the plot
plotcli$print_plot()
```

plotcli_bar

Bar plot using plotcli

Description

Create a bar plot using plotcli. Short alias: `pclb`.

Usage

```
plotcli_bar(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "barplot",
  ...
)
```

Arguments

<code>y</code>	A numeric vector of values
<code>x</code>	A vector of categories
<code>plot_width</code>	Width of the plot (default: 80)
<code>plot_height</code>	Height of the plot (default: 40)
<code>x_label</code>	Label for the x-axis (default: "x")
<code>y_label</code>	Label for the y-axis (default: "y")
<code>color</code>	Color of the plot elements (default: NULL)
<code>braille</code>	Use Braille characters for the plot (default: TRUE)
<code>name</code>	Name of the plot element (default: "barplot")
<code>...</code>	Additional arguments passed to the <code>plotcli\$new()</code> function

Examples

```
x <- 1:5
y <- c(10, 15, 8, 12, 6)
plotcli_bar(x, y)
```

plotcli_box

Box plot using plotcli

Description

Create a box plot using plotcli. Short alias: `pc1bx`.

Usage

```
plotcli_box(
  y,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "boxplot",
  ...
)
```

Arguments

<code>y</code>	A list of numeric vectors of values
<code>plot_width</code>	Width of the plot (default: 80)
<code>plot_height</code>	Height of the plot (default: 40)
<code>x_label</code>	Label for the x-axis (default: "x")
<code>y_label</code>	Label for the y-axis (default: "y")
<code>color</code>	Color of the plot elements (default: NULL)
<code>braille</code>	Use Braille characters for the plot (default: TRUE)
<code>name</code>	Name of the plot element (default: "boxplot")
<code>...</code>	Additional arguments passed to the <code>plotcli\$new()</code> function
<code>x</code>	A vector of categories

Examples

```
y <- rnorm(50, mean = 0)
plotcli_box(y)
```

<code>plotcli_density</code>	<i>Density plot using plotcli</i>
------------------------------	-----------------------------------

Description

Create a density plot using plotcli. Short alias: `pcld`.

Usage

```
plotcli_density(
  x,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "Density",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "density",
  ...
)
```

Arguments

x	A numeric vector of values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "Density")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "density")
...	Additional arguments passed to the plotcli\$new() function

Examples

```
x <- rnorm(100)
plotcli_density(x)
```

plotcli_histogram	<i>Histogram plot using plotcli</i>
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Description

Create a histogram plot using plotcli. Short alias: pcli.h.

Usage

```
plotcli_histogram(
  x,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
```

```

    y_label = "Frequency",
    color = NULL,
    braille = getOption("plotcli.braille", TRUE),
    bin_width = NULL,
    ylim = NULL,
    name = "histogram",
    ...
)

```

Arguments

<code>x</code>	A numeric vector of values
<code>plot_width</code>	Width of the plot (default: 80)
<code>plot_height</code>	Height of the plot (default: 40)
<code>x_label</code>	Label for the x-axis (default: "x")
<code>y_label</code>	Label for the y-axis (default: "Frequency")
<code>color</code>	Color of the plot elements (default: NULL)
<code>braille</code>	Use Braille characters for the plot (default: TRUE)
<code>bin_width</code>	Width of the bins (default: NULL)
<code>ylim</code>	y limits (default: NULL)
<code>name</code>	Name of the plot element (default: "histogram")
<code>...</code>	Additional arguments passed to the <code>plotcli\$new()</code> function

Examples

```

x <- rnorm(100)
plotcli_histogram(x)

```

<code>plotcli_line</code>	<i>Line plot using plotcli</i>
---------------------------	--------------------------------

Description

Create a line plot using `plotcli`. Short alias: `pcli`.

Usage

```

plotcli_line(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",

```

```

    color = NULL,
    braille = getOption("plotcli.braille", TRUE),
    name = "line",
    ...
)

```

Arguments

y	A numeric vector of y values
x	A numeric vector of x values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "y")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "line")
...	Additional arguments passed to the plotcli\$new() function

Examples

```

x <- 1:10
y <- x^2
plotcli_line(x, y)

```

plotcli_options	<i>Set global options for plotcli</i>
-----------------	---------------------------------------

Description

Set global options for plotcli

Usage

```
plotcli_options(plot_width = 60, plot_height = 20, braille = FALSE)
```

Arguments

plot_width	Default plot width (default: 60)
plot_height	Default plot height (default: 20)
braille	Default braille setting (default: FALSE)

plotcli_scatter	<i>Scatter plot using plotcli</i>
-----------------	-----------------------------------

Description

Create a scatter plot using plotcli. Short alias: pclis.

Usage

```
plotcli_scatter(
  y,
  x = NULL,
  plot_width = getOption("plotcli.plot_width", 80),
  plot_height = getOption("plotcli.plot_height", 40),
  x_label = "x",
  y_label = "y",
  color = NULL,
  braille = getOption("plotcli.braille", TRUE),
  name = "scatter",
  ...
)
```

Arguments

y	A numeric vector of y values
x	A numeric vector of x values
plot_width	Width of the plot (default: 80)
plot_height	Height of the plot (default: 40)
x_label	Label for the x-axis (default: "x")
y_label	Label for the y-axis (default: "y")
color	Color of the plot elements (default: NULL)
braille	Use Braille characters for the plot (default: TRUE)
name	Name of the plot element (default: "scatter")
...	Additional arguments passed to the plotcli\$new() function

Examples

```
x <- rnorm(100)
y <- rnorm(100)
plotcli_scatter(x, y)
```

rbind.plotcli	<i>Generic function for combining plotcli objects vertically</i>
---------------	--

Description

Generic function for combining plotcli objects vertically

Usage

```
## S3 method for class 'plotcli'  
rbind(..., deparse.level = 1)
```

Arguments

... plotcli objects to be combined.
deparse.level The deparsing level for the arguments.

Value

A combined plot matrix.

rbind_plots	<i>Combine plot matrices vertically</i>
-------------	---

Description

This function combines multiple plot matrices vertically, centering them horizontally.

Usage

```
rbind_plots(...)
```

Arguments

... A list of plot matrices to be combined.

Value

A combined plot matrix.

remove_color_codes	<i>Remove color codes from a string</i>
--------------------	---

Description

This function removes ANSI color codes from a given text string.

Usage

```
remove_color_codes(s)
```

Arguments

s	The text string containing ANSI color codes.
---	--

Value

A text string with ANSI color codes removed.

Examples

```
colored_text <- make_colored("Hello, world!", "blue")  
remove_color_codes(colored_text)
```

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