

Package ‘condformat’

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Type Package

Title Conditional Formatting in Data Frames

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URL <http://github.com/zeehio/condformat>

BugReports <http://github.com/zeehio/condformat/issues>

Description Apply and visualize conditional formatting to data frames in R.

It renders a data frame with cells formatted according to criteria defined by rules, using a tidy evaluation syntax. The table is printed either opening a web browser or within the 'RStudio' viewer if available. The conditional formatting rules allow to highlight cells matching a condition or add a gradient background to a given column. This package supports both 'HTML' and 'LaTeX' outputs in 'knitr' reports, and exporting to an 'xlsx' file.

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LazyData TRUE

NeedsCompilation no

Imports grDevices, graphics, gridExtra (>= 2.3), gtable (>= 0.2.0), htmlTable (>= 1.9), htmltools (>= 0.3.6), tibble (>= 1.3.4), scales (>= 0.5.0), dplyr (>= 0.7.4), lazyeval (>= 0.2.0), knitr (>= 1.20), rmarkdown (>= 0.9.6), magrittr (>= 1.5), rlang (>= 0.2.2), tidyselect (>= 0.2.2)

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+.condformat_tbl	<i>Combines data with formatting rules (deprecated)</i>
------------------	---

Description

This is deprecated

Usage

```
## S3 method for class 'condformat_tbl'
x + obj
```

Arguments

x	A condformat_tbl object
obj	A condformat_show or a condformat_rule object to be combined Any other type of object will be added as expected to the data frame.

Value

x, with extended condformat_tbl attributes

Examples

```
data(iris)
condformat(iris[1:5,]) + show_columns(Species)
```

cf_field_to_css	<i>How to export a cf_field to CSS</i>
-----------------	--

Description

This method is exported so package users can generate their own rules

Usage

```
cf_field_to_css(cf_field, xview, css_fields, unlocked)
```

Arguments

cf_field	A cf_field object. This is like a rule, but with the computed colour values. It usually maps one-to-one to a CSS field.
xview	A data frame with the columns to be printed and rows filtered
css_fields	A list of matrices. The names of the list are CSS attributes and each matrix is of the size of xview and contains the respective CSS values.
unlocked	A logical matrix of cells unlocked (that can still be modified by further rules).

Value

A list with two elements: `css_fields` and `unlocked` (with updated values)

`cf_field_to_gtable` *How to export a cf_field to grob*

Description

This method is exported so package users can generate their own rules

Usage

```
cf_field_to_gtable(cf_field, xview, gridobj, unlocked, has_rownames,
                  has_colnames)
```

Arguments

<code>cf_field</code>	A <code>cf_field</code> object. This is like a rule, but with the computed colour values. It usually maps one-to-one to a CSS field.
<code>xview</code>	A data frame with the columns to be printed and rows filtered
<code>gridobj</code>	The <code>tableGrob</code> object
<code>unlocked</code>	A logical matrix of cells unlocked (that can still be modified by further rules).
<code>has_rownames</code>	Whether or not the <code>gridobj</code> has a first column with row names
<code>has_colnames</code>	Whether or not the <code>gridobj</code> has a first row with column names

Value

A list with two elements: `gridobj` and `unlocked` (with updated values)

`cf_field_to_latex` *How to export cf values to latex*

Description

How to export cf values to latex

Usage

```
cf_field_to_latex(cf_field, xview, unlocked)
```

Arguments

cf_field	A cf_field object. This is like a rule, but with the computed colour values. It usually maps one-to-one to a CSS field.
xview	A data frame with the columns to be printed and rows filtered
unlocked	A logical matrix of cells unlocked (that can still be modified by further rules).

Value

A list with two character matrices named `before` and `after`. Both of these matrices must be of the same size as `xview`.

condformat	<i>Conditional formatting for data frames</i>
------------	---

Description

A `condformat_tbl` object is a data frame with attributes regarding the formatting of their cells, that can be viewed when the `condformat_tbl` object is printed.

Usage

```
condformat(x)
```

Arguments

x	A matrix or data.frame
---	------------------------

Value

The `condformat_tbl` object. This object can be piped to apply conditional formatting rules. It can also be used as a conventional data frame.

The `condformat_tbl` print method generates an `htmlTable`, to be viewed using RStudio Viewer or an HTML browser, as available.

Examples

```
data(iris)
condformat(iris[1:5,])

condformat(iris[1:5,]) %>% rule_fill_gradient(Sepal.Length)

condformat(iris[1:5,]) %>%
  rule_fill_discrete(Sepal.Length, expression=Sepal.Width > 2)
```

condformat-shiny *Shiny bindings for condformat*

Description

Output and render functions for using condformat within Shiny applications and interactive Rmd documents.

Usage

```
condformatOutput(outputId, ...)

renderCondformat(expr, env = parent.frame(), quoted = FALSE)

condformat_example(display.mode = "normal")
```

Arguments

outputId	output variable to read from
...	arguments passed to htmlOutput
expr	An expression that generates a condformat object
env	The environment in which to evaluate expr.
quoted	Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable.
display.mode	The mode in which to display the application. If set to the value "showcase", shows application code and metadata from a DESCRIPTION file in the application directory alongside the application. If set to "normal", displays the application normally. Defaults to "auto", which displays the application in the mode given in its DESCRIPTION file, if any.

condformat2excel *Writes the table to an Excel workbook*

Description

Writes the table to an Excel workbook

Usage

```
condformat2excel(x, filename, sheet_name = "Sheet1",
  overwrite_wb = FALSE, overwrite_sheet = TRUE)
```

Arguments

x	A condformat_tbl object
filename	The xlsx file name.
sheet_name	The name of the sheet where the table will be written
overwrite_wb	logical to overwrite the workbook file
overwrite_sheet	logical to overwrite the sheet

condformat2grob	<i>Converts the table to a grid object</i>
-----------------	--

Description

Converts the table to a grid object

Usage

```
condformat2grob(x)
```

Arguments

x	A condformat_tbl object
---	-------------------------

Value

the grid object

Examples

```
library(condformat)
data.frame(Student = c("Alice", "Bob", "Charlie"),
           Evaluation = c("Great", "Well done", "Good job!")) %>%
  condformat %>%
  condformat2grob
```

condformat2html *Converts the table to a htmlTable object*

Description

Converts the table to a htmlTable object

Usage

```
condformat2html(x)
```

Arguments

x A condformat_tbl object

Value

the htmlTable object

Examples

```
data(iris)
condformat2html(condformat(iris[1:5,]))
```

condformat2latex *Converts the table to LaTeX code*

Description

Converts the table to LaTeX code

Usage

```
condformat2latex(x)
```

Arguments

x A condformat_tbl object

Value

A character vector of the table source code

condformat2widget *Converts the table to a htmlTableWidget*

Description

Converts the table to a htmlTableWidget

Usage

```
condformat2widget(x, ...)
```

Arguments

x A condformat_tbl object
 ... Deprecated: Arguments passed to htmlTable::htmlTableWidget

Value

the htmlTable widget

Examples

```
## Not run:
data(iris)
condformat2widget(condformat(iris[1:5,]))

## End(Not run)
```

```
knit_print.condformat_tbl
                          Print method for knitr, exporting to HTML or LaTeX as needed
```

Description

Print method for knitr, exporting to HTML or LaTeX as needed

Usage

```
## S3 method for class 'condformat_tbl'
knit_print(x, ...)
```

Arguments

x Object to print
 ... On a LaTeX output these are unused. On an HTML output can have "paginate=TRUE" or "paginate = FALSE"

```
print.condformat_tbl Prints the data frame in an html page and shows it.
```

Description

Prints the data frame in an html page and shows it.

Usage

```
## S3 method for class 'condformat_tbl'
print(x, ..., paginate = TRUE)
```

Arguments

x	A condformat_tbl object
...	Arguments passed on to <code>htmltools::html_print</code>
	background Background color for web page
	viewer A function to be called with the URL or path to the generated HTML page. Can be NULL, in which case no viewer will be invoked.
paginate	A logical value. If TRUE the printing will be paginated

Value

the value returned by `htmlTable`

Examples

```
data(iris)
print(condformat(iris[1:5,]))
```

```
rule_css Apply a CSS style property as a conditional formatting rule
```

Description

Apply a CSS style property as a conditional formatting rule

Usage

```
rule_css(x, columns, expression, css_field, na.value = "",
        lockcells = FALSE)
```

Arguments

x	A condformat object, typically created with <code>condformat()</code>
columns	A character vector with column names to be coloured. Optionally <code>tidyselect::select_helpers()</code> can be used.
expression	This expression should evaluate to an array of the values
css_field	CSS style property name (e.g. "color")
na.value	CSS property value to be used in missing values (e.g. "grey")
lockcells	logical value determining if no further rules should be applied to the affected cells.

See Also

Other rule: [rule_fill_bar](#), [rule_fill_discrete](#), [rule_fill_gradient2](#), [rule_fill_gradient](#), [rule_text_bold](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 51:55, 101:105),]) %>%
  rule_css(Species, expression = ifelse(Species == "setosa", "red", "darkgreen"),
          css_field = "color")
```

rule_fill_bar	<i>Fill column with a bar of a length proportional to a value</i>
---------------	---

Description

Fills the background of a column cell using a bar proportional to the value of the cell

Usage

```
rule_fill_bar(x, columns, expression, low = "darkgreen",
             high = "white", background = "white", na.value = "gray",
             limits = NA, lockcells = FALSE)
```

Arguments

x	A condformat object, typically created with <code>condformat()</code>
columns	A character vector with column names to be coloured. Optionally <code>tidyselect::select_helpers()</code> can be used.
expression	an expression to be evaluated with the data. It should evaluate to a numeric vector, that will be used to determine the colour gradient level.
low	Colour for the beginning of the bar
high	Colour for the end of the bar

background	Background colour for the cell
na.value	Colour for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.

Value

The `condformat_tbl` object, with the added formatting information

See Also

Other rule: [rule_css](#), [rule_fill_discrete](#), [rule_fill_gradient2](#), [rule_fill_gradient](#), [rule_text_bold](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ]) %>% rule_fill_bar("Sepal.Length")
```

rule_fill_discrete *Fill column with discrete colors*

Description

Fills a column or columns of a data frame using a discrete colour palette, based on an expression.

Usage

```
rule_fill_discrete(x, columns, expression, colours = NA,
  na.value = "#FFFFFF", h = c(0, 360) + 15, c = 100, l = 65,
  h.start = 0, direction = 1, lockcells = FALSE, ...)
```

Arguments

x	A <code>condformat</code> object, typically created with <code>condformat()</code>
columns	A character vector with column names to be coloured. Optionally <code>tidyselect::select_helpers()</code> can be used.
expression	an expression to be evaluated with the data. It should evaluate to a logical or an integer vector, that will be used to determine which cells are to be coloured.
colours	a character vector with colours as values and the expression possible results as names.
na.value	a character string with the CSS color to be used in missing values
h	range of hues to use, in $[0, 360]$
c	chroma (intensity of colour), maximum value varies depending on combination of hue and luminance.

l	luminance (lightness), in [0, 100]
h.start	hue to start at
direction	direction to travel around the colour wheel, 1 = clockwise, -1 = counter-clockwise
lockcells	logical value determining if no further rules should be applied to the affected cells.
...	Dots are used to transition from the old syntax <code>rule_fill_discrete_old()</code> to the new one

Details

The syntax in `condformat` rules has changed since v0.7. See [rule_fill_discrete_old\(\)](#)

Value

The `condformat_tbl` object, with the added formatting information

See Also

Other rule: [rule_css](#), [rule_fill_bar](#), [rule_fill_gradient2](#), [rule_fill_gradient](#), [rule_text_bold](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_discrete("Species", colours = c("setosa" = "red",
                                           "versicolor" = "blue",
                                           "virginica" = "green")) %>%
  rule_fill_discrete("Sepal.Length", expression = Sepal.Length > 4.6,
                    colours=c("TRUE"="red"))

condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_discrete(c(starts_with("Sepal"), starts_with("Petal")),
                    expression = Sepal.Length > 4.6,
                    colours=c("TRUE"="red"))
```

`rule_fill_discrete_` *Fill column with discrete colors (deprecated)*

Description

This is a deprecated function

Usage

```
rule_fill_discrete_(columns, expression = ~., colours = NA, h = c(0,
  360) + 15, c = 100, l = 65, h.start = 0, direction = 1,
  na.value = "#FFFFFF", lockcells = FALSE)
```

Arguments

columns	a character vector with the column names or a list with dplyr select helpers given as formulas or a combination of both
expression	a formula to be evaluated with the data that will be used to determine which cells are to be coloured. See the examples to use it programmatically
colours	a character vector with colours as values and the expression possible results as names.
h	range of hues to use, in [0, 360]
c	chroma (intensity of colour), maximum value varies depending on combination of hue and luminance.
l	luminance (lightness), in [0, 100]
h.start	hue to start at
direction	direction to travel around the colour wheel, 1 = clockwise, -1 = counter-clockwise
na.value	a character string with the CSS color to be used in missing values
lockcells	logical value determining if no further rules should be applied to the affected cells.

Examples

```

data(iris)
condformat(iris[c(1,51,101), ]) +
  rule_fill_discrete_(columns=c("Species"))
condformat(iris[c(1,51,101), ]) +
  rule_fill_discrete_("Species", expression=~Sepal.Length > 6)

# Use it programmatically:
color_column_larger_than_threshold <- function(x, column, threshold) {
  condformat(x) +
    rule_fill_discrete_(column,
      expression=~ uq(as.name(column))> uq(threshold))
}
color_column_larger_than_threshold(iris[c(1,51,101),], "Sepal.Length", 6.3)

condformat(iris[c(1,51,101),]) +
  rule_fill_discrete_(columns = list(~dplyr::starts_with("Petal"), "Species"),
    expression=~Species)

# Custom discrete color values can be specified with a function. The function takes
# the whole column and returns a vector with the colours.
color_pick <- function(column) {
  sapply(column,
    FUN = function(value) {
      if (value < 4.7) {
        return("red")
      } else if (value < 5.0) {
        return("yellow")
      } else {
        return("green")
      }
    }
  )
}

```

```

    }
  })
}
condformat(head(iris)) +
  rule_fill_discrete_("Sepal.Length", ~ color_pick(Sepal.Length), colours = identity)

```

rule_fill_discrete_old

Fill column with discrete colors (deprecated)

Description

Fills a column or columns of a data frame using a discrete colour palette, based on an expression.

Usage

```
rule_fill_discrete_old(..., expression, colours = NA,
  na.value = "#FFFFFF", h = c(0, 360) + 15, c = 100, l = 65,
  h.start = 0, direction = 1, lockcells = FALSE)
```

Arguments

...	Comma separated list of unquoted column names. If expression is also given, then this list can use any of the select syntax possibilities.
expression	an expression to be evaluated with the data. It should evaluate to a logical or an integer vector, that will be used to determine which cells are to be coloured.
colours	a character vector with colours as values and the expression possible results as names.
na.value	a character string with the CSS color to be used in missing values
h	range of hues to use, in [0, 360]
c	chroma (intensity of colour), maximum value varies depending on combination of hue and luminance.
l	luminance (lightness), in [0, 100]
h.start	hue to start at
direction	direction to travel around the colour wheel, 1 = clockwise, -1 = counter-clockwise
lockcells	logical value determining if no further rules should be applied to the affected cells.

Value

The `condformat_tbl` object, with the added formatting information

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ] +
  rule_fill_discrete(Species, colours = c("setosa" = "red",
                                         "versicolor" = "blue",
                                         "virginica" = "green")) +
  rule_fill_discrete(Sepal.Length, expression=Sepal.Length > 4.6,
                    colours=c("TRUE"="red"))
```

rule_fill_gradient *Fill column with sequential colour gradient*

Description

Fills the background color of a column using a gradient based on the values given by an expression

Usage

```
rule_fill_gradient(x, columns, expression, low = "#132B43",
  high = "#56B1F7", space = "Lab", na.value = "#7F7F7F",
  limits = NA, lockcells = FALSE, ...)
```

Arguments

x	A condformat object, typically created with <code>condformat()</code>
columns	A character vector with column names to be coloured. Optionally <code>tidyselect::select_helpers()</code> can be used.
expression	an expression to be evaluated with the data. It should evaluate to a numeric vector, that will be used to determine the colour gradient level.
low	colour for low end of gradient.
high	colour for high end of gradient.
space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.
...	Dots are used to transition from the old syntax <code>rule_fill_discrete_old</code> to the new one

Details

The syntax in condformat rules has changed since v0.7. See [rule_fill_gradient_old](#)

Value

The `condformat_tbl` object, with the added formatting information

See Also

Other rule: [rule_css](#), [rule_fill_bar](#), [rule_fill_discrete](#), [rule_fill_gradient2](#), [rule_text_bold](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_gradient(Sepal.Length) %>%
  rule_fill_gradient(Species, expression=Sepal.Length - Sepal.Width)

condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_gradient("Petal.Length") %>%
  rule_fill_gradient(starts_with("Sepal"), expression=Sepal.Length - Sepal.Width)
```

`rule_fill_gradient2` *Fill column with sequential color gradient*

Description

Fills the background color of a column using a gradient based on the values given by an expression

Usage

```
rule_fill_gradient2(x, columns, expression, low = scales::muted("red"),
  mid = "white", high = scales::muted("blue"), midpoint = NA,
  space = "Lab", na.value = "#7F7F7F", limits = NA,
  lockcells = FALSE, ...)
```

Arguments

<code>x</code>	A <code>condformat</code> object, typically created with condformat()
<code>columns</code>	A character vector with column names to be colored. Optionally tidyselect::select_helpers() can be used.
<code>expression</code>	an expression to be evaluated with the data. It should evaluate to a logical or an integer vector, that will be used to determine which cells are to be colored.
<code>low</code>	colour for low end of gradient.
<code>mid</code>	colour for mid point
<code>high</code>	colour for high end of gradient.
<code>midpoint</code>	the value used for the middle color (the median by default)

space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.
...	Dots are used to transition from the old syntax rule_fill_discrete_old() to the new one

Details

The syntax in `condformat` rules has changed since v0.7. See [rule_fill_gradient_old\(\)](#)

Value

The `condformat_tbl` object, with the added formatting information

See Also

Other rule: [rule_css](#), [rule_fill_bar](#), [rule_fill_discrete](#), [rule_fill_gradient](#), [rule_text_bold](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_gradient2(Sepal.Length) %>%
  rule_fill_gradient2(Species, expression=Sepal.Length - Sepal.Width)

condformat(iris[c(1:5, 70:75, 120:125), ]) %>%
  rule_fill_gradient2("Petal.Length") %>%
  rule_fill_gradient2(starts_with("Sepal"), expression=Sepal.Length - Sepal.Width)
```

rule_fill_gradient2_ *Fill column with divergent color gradient (deprecated)*

Description

Fills the background color of a column using a three colors gradient based on the values of an expression

Usage

```
rule_fill_gradient2_(columns, expression = ~.,
  low = scales::muted("red"), mid = "white",
  high = scales::muted("blue"), midpoint = NA, space = "Lab",
  na.value = "#7F7F7F", limits = NA, lockcells = FALSE)
```

Arguments

columns	a character vector with the column names or a list with dplyr select helpers given as formulas or a combination of both
expression	a formula to be evaluated with the data that will be used to determine which cells are to be colored. See the examples to use it programmatically
low	colour for low end of gradient.
mid	colour for mid point
high	colour for high end of gradient.
midpoint	the value used for the middle color (the median by default)
space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.

Examples

```
data(iris)
condformat(iris[1:10,]) + rule_fill_gradient2_(columns=c("Sepal.Length"))
condformat(iris[1:10,]) + rule_fill_gradient2_("Species",
  expression= ~Sepal.Length~Sepal.Width)

# Use it programmatically
color_column <- function(x, column) {
  condformat(x) +
    rule_fill_gradient2_(column, expression=~ uq(as.name(column)))
}
color_column(iris[c(1,51,101),], "Sepal.Length")
```

```
rule_fill_gradient2_old
```

Fill column with divergent color gradient (deprecated)

Description

Fills the background color of a column using a three colors gradient based on the values of an expression

Usage

```
rule_fill_gradient2_old(..., expression, low = scales::muted("red"),
  mid = "white", high = scales::muted("blue"), midpoint = NA,
  space = "Lab", na.value = "#7F7F7F", limits = NA,
  lockcells = FALSE)
```

Arguments

...	Comma separated list of unquoted column names. If expression is also given, then this list can use any of the <code>select</code> syntax possibilities.
expression	an expression to be evaluated with the data. It should evaluate to a numeric vector, that will be used to determine the color gradient level.
low	colour for low end of gradient.
mid	colour for mid point
high	colour for high end of gradient.
midpoint	the value used for the middle color (the median by default)
space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.

Value

The `condformat_tbl` object, with the added formatting information

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ] +
  rule_fill_gradient2(Sepal.Length) +
  rule_fill_gradient2(Species, expression=Sepal.Length - Sepal.Width)
```

rule_fill_gradient_ *Fill column with sequential colour gradient (deprecated)*

Description

Fills the background color of a column using a gradient based on the values given by an expression

Usage

```
rule_fill_gradient_(columns, expression = ~., low = "#132B43",
  high = "#56B1F7", space = "Lab", na.value = "#7F7F7F",
  limits = NA, lockcells = FALSE)
```

Arguments

columns	a character vector with the column names or a list with dplyr select helpers given as formulas or a combination of both
expression	a formula to be evaluated with the data that will be used to determine which cells are to be coloured. See the examples to use it programmatically
low	colour for low end of gradient.
high	colour for high end of gradient.
space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.

Examples

```

data(iris)
condformat(iris[1:5,]) + rule_fill_gradient_(columns=c("Sepal.Length"))
ex1 <- condformat(iris[1:5,]) +
  rule_fill_gradient_("Species", expression=~Sepal.Length-Sepal.Width)
# Use it programmatically:
gradient_color_column1_minus_column2 <- function(x, column_to_paint, column1, column2) {
  condformat(x) +
    rule_fill_discrete_(column_to_paint,
      expression=~ uq(as.name(column1)) - uq(as.name(column2)))
}
ex2 <- gradient_color_column1_minus_column2(iris[1:5,], "Species", "Sepal.Length", "Sepal.Width")
stopifnot(ex1 == ex2)

```

```
rule_fill_gradient_old
```

Fill column with sequential colour gradient (deprecated)

Description

Fills the background color of a column using a gradient based on the values given by an expression

Usage

```
rule_fill_gradient_old(..., expression, low = "#132B43",
  high = "#56B1F7", space = "Lab", na.value = "#7F7F7F",
  limits = NA, lockcells = FALSE)
```

Arguments

...	Comma separated list of unquoted column names. If expression is also given, then this list can use any of the select syntax possibilities.
expression	an expression to be evaluated with the data. It should evaluate to a numeric vector, that will be used to determine the colour gradient level.
low	colour for low end of gradient.
high	colour for high end of gradient.
space	colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.
na.value	fill color for missing values
limits	range of limits that the gradient should cover
lockcells	logical value determining if no further rules should be applied to the affected cells.

Value

The `condformat_tbl` object, with the added formatting information

Examples

```
data(iris)
condformat(iris[c(1:5, 70:75, 120:125), ]) +
  rule_fill_gradient(Sepal.Length) +
  rule_fill_gradient(Species, expression=Sepal.Length - Sepal.Width)
```

rule_text_bold	<i>Use bold text if a condition is met</i>
----------------	--

Description

Use bold text if a condition is met

Usage

```
rule_text_bold(x, columns, expression, na.bold = FALSE,
  lockcells = FALSE)
```

Arguments

x	A <code>condformat</code> object, typically created with <code>condformat()</code>
columns	A character vector with column names to be coloured. Optionally <code>tidyselect::select_helpers()</code> can be used.
expression	Condition that evaluates to TRUE for the rows where bold text should be applied.
na.bold	If TRUE, make missing values bold.
lockcells	logical value determining if no further rules should be applied to the affected cells.

See Also

Other rule: [rule_css](#), [rule_fill_bar](#), [rule_fill_discrete](#), [rule_fill_gradient2](#), [rule_fill_gradient](#), [rule_text_color](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 51:55, 101:105),]) %>%
  rule_text_bold(Species, expression = Species == "setosa")
```

rule_text_color	<i>Give a color to the text according to some expression</i>
-----------------	--

Description

Give a color to the text according to some expression

Usage

```
rule_text_color(x, columns, expression, na.color = "",
  lockcells = FALSE)
```

Arguments

x	A condformat object, typically created with condformat()
columns	A character vector with column names to be coloured. Optionally tidyselect::select_helpers() can be used.
expression	Condition that evaluates to color names for the rows where text should be colored
na.color	Color for missing values
lockcells	logical value determining if no further rules should be applied to the affected cells.

See Also

Other rule: [rule_css](#), [rule_fill_bar](#), [rule_fill_discrete](#), [rule_fill_gradient2](#), [rule_fill_gradient](#), [rule_text_bold](#)

Examples

```
data(iris)
condformat(iris[c(1:5, 51:55, 101:105),]) %>%
  rule_text_color(Species, expression = ifelse(Species == "setosa", "blue", ""))
```

show_columns	<i>Selects the variables to be printed</i>
--------------	--

Description

Keeps the variables you mention in the printed table. Compared to [select](#), `show_columns` does not remove the columns from the data frame, so formatting rules can still depend on them.

Usage

```
show_columns(x, columns, col_names, ...)
```

Arguments

<code>x</code>	A <code>condformat</code> object, typically created with condformat()
<code>columns</code>	A character vector with column names to be to show. It can also be an expression can be used that will be parsed like in tidyselect::vars_select() . See examples.
<code>col_names</code>	Character vector with the column names for the selected columns
<code>...</code>	Dots are used to transition from the old syntax show_columns_old() to the new one

Value

The `condformat` object with the rule added

See Also

[select](#)

Examples

```
data(iris)
x <- head(iris)

# Include some columns:
condformat(x) %>% show_columns(c(Sepal.Length, Sepal.Width, Species))
condformat(x) %>% show_columns(c("Sepal.Length", "Sepal.Width", "Species"))

# Rename columns:
condformat(x) %>%
  show_columns(c(Sepal.Length, Species),
               col_names = c("Length", "Spec.))

# Exclude some columns:
condformat(x) %>% show_columns(c(-Petal.Length, -Petal.Width))
```



```
condformat(x) %>% show_columns(c(starts_with("Petal"), Species))

petal_width <- "Petal.Width"
condformat(x) %>% show_columns(!! petal_width)
```

show_columns_	<i>Show columns (deprecated)</i>
---------------	----------------------------------

Description

Show columns (deprecated)

Usage

```
show_columns_(..., .dots, col_names)
```

Arguments

...	Comma separated list of unquoted expressions
.dots	A character vector with columns to show
col_names	Character vector with the column names for the selected columns

Examples

```
data(iris)
x <- head(iris)
# Use standard evaluation (columns as strings):
condformat(x) +
  show_columns_(.dots = c("Sepal.Length", "Species"), col_names = c("Sepal Length", "Species"))
```

show_columns_old	<i>Selects the variables to be printed (deprecated)</i>
------------------	---

Description

This syntax is deprecated and [show_columns](#) should be used instead

Usage

```
show_columns_old(..., col_names)
```

Arguments

...	Comma separated list of unquoted expressions
col_names	Character vector with the column names for the selected columns

Details

Keeps the variables you mention in the printed table. Compared to [select](#), `show_columns` does not remove the columns from the data frame, so formatting rules can still depend on them.

Value

A `condformat_show_columns` object, usually to be added to a `condformat_tbl` object

See Also

[select](#)

Examples

```
library(dplyr) # for starts_with()
data(iris)
x <- head(iris)

# Include some columns:
condformat(x) + show_columns(Sepal.Length, Sepal.Width, Species)

# Rename columns:
condformat(x) + show_columns(Sepal.Length, Species, col_names = c("Length", "Spec.))

# Exclude some columns:
condformat(x) + show_columns(-Petal.Length, -Petal.Width)

# Select columns using dplyr syntax:
condformat(x) + show_columns(starts_with("Petal"), Species)
```

show_rows

Selects the rows to be printed

Description

Keeps the rows you mention in the printed table. Compared to [filter](#), `show_rows` does not remove the rows from the actual data frame, they are removed only for printing.

Usage

```
show_rows(x, ...)
```

Arguments

x	condformat_tbl object
...	Expressions used for filtering

Value

A `condformat_show_rows` object, usually to be added to a `condformat_tbl` object as shown in the examples

See Also

[filter](#)

Examples

```
library(condformat)
data(iris)
x <- head(iris)
condformat(x) %>% show_rows(Sepal.Length > 4.5, Species == "setosa")
# Use it programatically
expr_as_text <- 'Sepal.Length > 4.5'
expr <- rlang::parse_expr(expr_as_text)
condformat(x) %>% show_rows(! expr)
# With multiple arguments:
expr_as_text <- c('Sepal.Length > 4.5', 'Species == "setosa"')
exprs <- lapply(expr_as_text, rlang::parse_expr)
condformat(x) %>% show_rows(!!! exprs)
```

<code>show_rows_old</code>	<i>Selects the rows to be printed (deprecated)</i>
----------------------------	--

Description

This function is deprecated. Use [show_rows](#) instead

Usage

```
show_rows_old(...)
show_rows_(..., .dots)
```

Arguments

<code>...</code>	Expressions used for filtering
<code>.dots</code>	A list of lazy objects. See examples

Details

Keeps the rows you mention in the printed table. Compared to [filter](#), `show_rows` does not remove the rows from the actual data frame, they are removed only for printing.

Value

A `condformat_show_rows` object, usually to be added to a `condformat_tbl` object as shown in the examples

See Also

[filter](#)

Examples

```
library(condformat)
data(iris)
x <- head(iris)
condformat(x) + show_rows(Sepal.Length > 4.5, Species == "setosa")
library(condformat)
data(iris)
x <- head(iris)
condformat(x) + show_rows_(.dots = c("Sepal.Length > 4.5", "Species == 'setosa'"))
```

theme_caption

Sets the caption of a condformat object

Description

The advantage with respect to `theme_htmlTable(caption = "My table")` is that this works with HTML and LaTeX outputs

Usage

```
theme_caption(x, caption = "")
```

Arguments

x	The condformat object
caption	The caption to show

Examples

```
data(iris)
condformat(head(iris)) %>%
  theme_caption(caption = "My Caption")
```

theme_grob	<i>Customizes appearance of condformat object</i>
------------	---

Description

This is only used on grob output.

Usage

```
theme_grob(x, ...)
```

Arguments

x	The condformat object
...	Arguments to be passed to gridExtra::tableGrob (see examples)

See Also

[tableGrob](#)

Examples

```
data(iris)
condformat(head(iris)) %>%
  theme_grob(base_size = 10, base_colour = "red")
```

theme_htmlTable	<i>Customizes appearance of condformat object</i>
-----------------	---

Description

Customizes appearance of condformat object

Usage

```
theme_htmlTable(x, ...)
```

Arguments

x	The condformat object
...	Arguments to be passed to htmlTable

See Also

[htmlTable](#)

Examples

```
data(iris)
condformat(head(iris)) %>% theme_htmlTable(caption="Table 1: My iris table", rnames=FALSE)
```

theme_htmlWidget	<i>Customizes appearance of condformat object</i>
------------------	---

Description

Customizes appearance of condformat object

Usage

```
theme_htmlWidget(x, ...)
```

Arguments

x	The condformat object
...	Arguments to be passed to <code>htmlTable::htmlTableWidget</code> (see examples)

See Also

[htmlTable](#)

Examples

```
data(iris)
condformat(head(iris)) %>%
  theme_htmlWidget(number_of_entries = c(10, 25, 100),
                    width = NULL, height = NULL, elementId = NULL)
```

theme_kable	<i>Customizes appearance of condformat object</i>
-------------	---

Description

This is only used on LaTeX output.

Usage

```
theme_kable(x, ...)
```

Arguments

x	The condformat object
...	Arguments to be passed to <code>knitr::kable</code> (see examples)

See Also

[kable](#)

Examples

```
data(iris)
condformat(head(iris)) %>%
  theme_kable(booktabs = TRUE, caption = "My Caption")
```

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