

Package ‘gt’

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Type Package

Version 0.7.0

Title Easily Create Presentation-Ready Display Tables

Description Build display tables from tabular data with an easy-to-use set of functions. With its progressive approach, we can construct display tables with a cohesive set of table parts. Table values can be formatted using any of the included formatting functions. Footnotes and cell styles can be precisely added through a location targeting system. The way in which 'gt' handles things for you means that you don't often have to worry about the fine details.

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URL <https://gt.rstudio.com/>, <https://github.com/rstudio/gt>

BugReports <https://github.com/rstudio/gt/issues>

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'dt_source_notes.R' 'dt_spanners.R' 'dt_stub_df.R'
 'dt_stubhead.R' 'dt_styles.R' 'dt_summary.R' 'dt_transforms.R'
 'export.R' 'format_data.R' 'format_vec.R' 'gt-package.R' 'gt.R'
 'gt_preview.R' 'helpers.R' 'image.R' 'info_tables.R'
 'knitr-utils.R' 'location_methods.R' 'modify_columns.R'
 'modify_rows.R' 'tab_create_modify.R' 'opts.R' 'print.R'
 'reexports.R' 'render_as_html.R' 'resolver.R' 'shiny.R'
 'substitution.R' 'summary_rows.R' 'text_transform.R' 'utils.R'
 'utils_formatters.R' 'utils_general_str_formatting.R'
 'utils_pipe.R' 'utils_render_common.R' 'utils_render_html.R'
 'utils_render_latex.R' 'utils_render_rtf.R'
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adjust_luminance	<i>Adjust the luminance for a palette of colors</i>
------------------	---

Description

This function can brighten or darken a palette of colors by an arbitrary number of steps, which is defined by a real number between -2.0 and 2.0. The transformation of a palette by a fixed step in this function will tend to apply greater darkening or lightening for those colors in the midrange compared to any very dark or very light colors in the input palette.

Usage

```
adjust_luminance(colors, steps)
```

Arguments

colors	A vector of colors that will undergo an adjustment in luminance. Each color value provided must either be a color name (in the set of colors provided by <code>grDevices::colors()</code>) or a hexadecimal string in the form of "#RRGGBB" or "#RRGGBBAA".
steps	A positive or negative factor by which the luminance will be adjusted. Must be a number between -2.0 and 2.0.

Details

This function can be useful when combined with the `data_color()` function's `palette` argument, which can use a vector of colors or any of the `col_*` functions from the `scales` package (all of which have a `palette` argument).

Value

A vector of color values.

Examples

Get a palette of 8 pastel colors from the **RColorBrewer** package.

```
pal <- RColorBrewer::brewer.pal(8, "Pastel2")
```

Create lighter and darker variants of the base palette (one step lower, one step higher).

```
pal_darker <- pal %>% adjust_luminance(-1.0)
pal_lighter <- pal %>% adjust_luminance(+1.0)
```

Create a tibble and make a **gt** table from it. Color each column in order of increasingly darker palettes (with `data_color()`).

```
dplyr::tibble(a = 1:8, b = 1:8, c = 1:8) %>%
  gt() %>%
  data_color(
    columns = a,
    colors = scales::col_numeric(
      palette = pal_lighter,
      domain = c(1, 8)
    )
  ) %>%
  data_color(
    columns = b,
    colors = scales::col_numeric(
      palette = pal,
      domain = c(1, 8)
    )
  ) %>%
  data_color(
    columns = c,
    colors = scales::col_numeric(
      palette = pal_darker,
      domain = c(1, 8)
    )
  )
)
```

Function ID

7-22

See Also

Other helper functions: [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

as_latex

*Output a gt object as LaTeX***Description**

Get the LaTeX content from a `gt_tbl` object as a `knit_asis` object. This object contains the LaTeX code and attributes that serve as LaTeX dependencies (i.e., the LaTeX packages required for the table). Using `as.character()` on the created object will result in a single-element vector containing the LaTeX code.

Usage

```
as_latex(data)
```

Arguments

`data` A table object that is created using the `gt()` function.

Details

LaTeX packages required to generate tables are: `amsmath`, `booktabs`, `caption`, `longtable`.

In the event packages are not automatically added during the render phase of the document, please create and include a style file to load them.

Inside the document's YAML metadata, please include:

```
output:
  pdf_document: # Change to appropriate LaTeX template
  includes:
    in_header: 'gt_packages.sty'
```

The `gt_packages.sty` file would then contain the listed dependencies above:

```
\usepackage{amsmath, booktabs, caption, longtable}
```

Examples

Use `gtcars` to create a `gt` table. Add a header and then export as an object with LaTeX code.

```
tab_latex <-
  gtcars %>%
  dplyr::select(mfr, model, msrp) %>%
  dplyr::slice(1:5) %>%
  gt() %>%
  tab_header(
    title = md("Data listing from **gtcars**"),
    subtitle = md("`gtcars` is an R dataset")
  ) %>%
  as_latex()
```

What's returned is a `knit_asis` object, which makes it easy to include in R Markdown documents that are knit to PDF. We can use `as.character()` to get just the LaTeX code as a single-element vector.

Function ID

13-3

See Also

Other table export functions: `as_raw_html()`, `as_rtf()`, `as_word()`, `extract_summary()`, `gtsave()`

as_raw_html	<i>Get the HTML content of a gt table</i>
-------------	--

Description

Get the HTML content from a `gt_tbl` object as a single-element character vector. By default, the generated HTML will have inlined styles, where CSS styles (that were previously contained in CSS rule sets external to the `<table>` element) are included as `style` attributes in the HTML table's tags. This option is preferable when using the output HTML table in an emailing context.

Usage

```
as_raw_html(data, inline_css = TRUE)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
inline_css	An option to supply styles to table elements as inlined CSS styles. This is useful when including the table HTML as part of an HTML email message body, since inlined styles are largely supported in email clients over using CSS in a <code><style></code> block.

Examples

Use `gtcars` to create a `gt` table. Add a header and then export as HTML code with inlined CSS styles.

```
tab_html <-
  gtcars %>%
  dplyr::select(mfr, model, msrp) %>%
  dplyr::slice(1:5) %>%
  gt() %>%
  tab_header(
    title = md("Data listing from *gtcars*"),
    subtitle = md("`gtcars` is an R dataset")
  ) %>%
  as_raw_html()
```


What's returned is a single-element vector containing the HTML for the table. It has only the `<table>...</table>` part so it's not a complete HTML document but rather an HTML fragment.

Function ID

13-2

See Also

Other table export functions: [as_latex\(\)](#), [as_rtf\(\)](#), [as_word\(\)](#), [extract_summary\(\)](#), [gtsave\(\)](#)

`as_rtf`*Output a **gt** object as RTF*

Description

Get the RTF content from a `gt_tbl` object as a single-element character vector. This object can be used with `writelines()` to generate a valid `.rtf` file that can be opened by RTF readers.

Usage

```
as_rtf(data)
```

Arguments

`data` A table object that is created using the `gt()` function.

Examples

Use [gtcars](#) to create a **gt** table. Add a header and then export as RTF code.

```
tab_rtf <-
  gtcars %>%
  dplyr::select(mfr, model) %>%
  dplyr::slice(1:2) %>%
  gt() %>%
  tab_header(
    title = md("Data listing from gtcars"),
    subtitle = md("`gtcars` is an R dataset")
  ) %>%
  as_rtf()
```

Function ID

13-4

See Also

Other table export functions: [as_latex\(\)](#), [as_raw_html\(\)](#), [as_word\(\)](#), [extract_summary\(\)](#), [gtsave\(\)](#)

as_word

*Output a **gt** object as Word***Description**

Get the Open Office XML table tag content from a `gt_tbl` object as a single-element character vector.

Usage

```
as_word(
  data,
  align = "center",
  caption_location = c("top", "bottom", "embed"),
  caption_align = "left",
  split = FALSE,
  keep_with_next = TRUE
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>align</code>	left, center (default) or right.
<code>caption_location</code>	top (default), bottom, or embed Indicating if the title and subtitle should be listed above, below, or be embedded in the table
<code>caption_align</code>	left (default), center, or right. Alignment of caption (title and subtitle). Used when <code>caption_location</code> is not "embed".
<code>split</code>	TRUE or FALSE (default) indicating whether activate Word option 'Allow row to break across pages'.
<code>keep_with_next</code>	TRUE (default) or FALSE indicating whether a table should use Word option 'keep rows together' is activated when TRUEd

Function ID

13-5

See Also

Other table export functions: [as_latex\(\)](#), [as_raw_html\(\)](#), [as_rtf\(\)](#), [extract_summary\(\)](#), [gtsave\(\)](#)

Examples

```
# Use `gtcars` to create a gt table;
# add a header and then export as
# OOXML code for Word
tab_rtf <-
  gtcars %>%
  dplyr::select(mfr, model) %>%
  dplyr::slice(1:2) %>%
  gt() %>%
  tab_header(
    title = md("Data listing from **gtcars**"),
    subtitle = md("`gtcars` is an R dataset")
  ) %>%
  as_word()
```

cells_body

Location helper for targeting data cells in the table body

Description

The `cells_body()` function is used to target the data cells in the table body. The function can be used to apply a footnote with `tab_footnote()`, to add custom styling with `tab_style()`, or the transform the targeted cells with `text_transform()`. The function is expressly used in each of those functions' `locations` argument. The `'body'` location is present by default in every `gt` table.

Usage

```
cells_body(columns = everything(), rows = everything())
```

Arguments

<code>columns</code>	The names of the columns that are to be targeted.
<code>rows</code>	The names of the rows that are to be targeted.

Value

A list object with the classes `cells_body` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument (`"title"` or `"subtitle"`).

- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `gtcars` to create a **gt** table. Add a footnote that targets a single data cell with `tab_footnote()`, using `cells_body()` in `locations` (`rows = hp == max(hp)` will target a single row in the `hp` column).

```
gtcars %>%
  dplyr::filter(ctry_origin == "United Kingdom") %>%
  dplyr::select(mfr, model, year, hp) %>%
  gt() %>%
  tab_footnote(
    footnote = "Highest horsepower.",
    locations = cells_body(
      columns = hp,
      rows = hp == max(hp)
    )
  ) %>%
  opt_footnote_marks(marks = c("*", "+"))
```

Function ID

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cells_column_labels *Location helper for targeting the column labels*

Description

The `cells_column_labels()` function is used to target the table's column labels when applying a footnote with [tab_footnote\(\)](#) or adding custom style with [tab_style\(\)](#). The function is expressly used in each of those functions' `locations` argument. The `'column_labels'` location is present by default in every `gt` table.

Usage

```
cells_column_labels(columns = everything())
```

Arguments

`columns` The names of the column labels that are to be targeted.

Value

A list object with the classes `cells_column_labels` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- [cells_title\(\)](#): targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- [cells_stubhead\(\)](#): targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the [tab_stubhead\(\)](#) function.
- [cells_column_spanners\(\)](#): targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- [cells_column_labels\(\)](#): targets the column labels with its `columns` argument.
- [cells_row_groups\(\)](#): targets the row group labels in any available row groups using the `groups` argument.
- [cells_stub\(\)](#): targets row labels in the table stub using the `rows` argument.
- [cells_body\(\)](#): targets data cells in the table body using intersections of columns and rows.

- `cells_summary()`: targets summary cells in the table body using the groups argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the groups and rows arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the rows argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `sza` to create a `gt` table. Add footnotes to the column labels with `tab_footnote()` and `cells_column_labels()` in locations.

```

sza %>%
  dplyr::filter(
    latitude == 20 & month == "jan" &
    !is.na(sza)
  ) %>%
  dplyr::select(-latitude, -month) %>%
  gt() %>%
  tab_footnote(
    footnote = "True solar time.",
    locations = cells_column_labels(
      columns = tst
    )
  ) %>%
  tab_footnote(
    footnote = "Solar zenith angle.",
    locations = cells_column_labels(
      columns = sza
    )
  )

```

Function ID

7-8

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cells_column_spanners *Location helper for targeting the column spanners*

Description

The `cells_column_spanners()` function is used to target the cells that contain the table column spanners. This is useful when applying a footnote with [tab_footnote\(\)](#) or adding custom style with [tab_style\(\)](#). The function is expressly used in each of those functions' `locations` argument. The 'column_spanners' location is generated by one or more uses of the [tab_spanner\(\)](#) function or the [tab_spanner_delim\(\)](#) function.

Usage

```
cells_column_spanners(spanners = everything())
```

Arguments

`spanners` The names of the spanners that are to be targeted.

Value

A list object with the classes `cells_column_spanners` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- [cells_title\(\)](#): targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- [cells_stubhead\(\)](#): targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the [tab_stubhead\(\)](#) function.
- [cells_column_spanners\(\)](#): targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- [cells_column_labels\(\)](#): targets the column labels with its `columns` argument.
- [cells_row_groups\(\)](#): targets the row group labels in any available row groups using the `groups` argument.
- [cells_stub\(\)](#): targets row labels in the table stub using the `rows` argument.

- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the groups argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the groups and rows arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the rows argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `exibble` to create a `gt` table. Add a spanner column label over three column labels with `tab_spanner()` and then use `tab_style()` and `cells_column_spanners()` to make the spanner label text bold.

```
exibble %>%
  dplyr::select(-fctr, -currency, -group) %>%
  gt(rowname_col = "row") %>%
  tab_spanner(
    label = "dates and times",
    id = "dt",
    columns = c(date, time, datetime)
  ) %>%
  tab_style(
    style = cell_text(weight = "bold"),
    locations = cells_column_spanners(spanners = "dt")
  )
```

Function ID

7-7

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

cells_footnotes	<i>Location helper for targeting the footnotes</i>
-----------------	--

Description

The `cells_footnotes()` function is used to target all footnotes in the footer section of the table. This is useful for adding custom styles to the footnotes with `tab_style()` (using the `locations` argument). The 'footnotes' location is generated by one or more uses of the `tab_footnote()` function. This location helper function cannot be used for the `locations` argument of `tab_footnote()` and doing so will result in a warning (with no change made to the table).

Usage

```
cells_footnotes()
```

Value

A list object with the classes `cells_footnotes` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with `locations` corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of `columns` and `rows`.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of `columns` and `rows`.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of `columns` and `rows`.
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.

- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `sza` to create a `gt` table. Color the `sza` column using the `data_color()` function, add a footnote and also style the footnotes section.

```

sza %>%
  dplyr::filter(
    latitude == 20 &
    month == "jan" &
    !is.na(sza)
  ) %>%
  dplyr::select(-latitude, -month) %>%
  gt() %>%
  data_color(
    columns = sza,
    colors = scales::col_numeric(
      palette = c("white", "yellow", "navyblue"),
      domain = c(0, 90)
    )
  ) %>%
  tab_footnote(
    footnote = "Color indicates height of sun.",
    locations = cells_column_labels(columns = sza)
  ) %>%
  tab_options(table.width = px(320)) %>%
  tab_style(
    style = list(
      cell_text(size = "smaller"),
      cell_fill(color = "gray90")
    ),
    locations = cells_footnotes()
  )

```

Function ID

7-16

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_grand_summary()`,

cells_row_groups(), cells_source_notes(), cells_stub_grand_summary(), cells_stub_summary(), cells_stubhead(), cells_stub(), cells_summary(), cells_title(), currency(), default_fonts(), escape_latex(), google_font(), gt_latex_dependencies(), html(), md(), pct(), px(), random_id()

cells_grand_summary *Location helper for targeting cells in a grand summary*

Description

The `cells_grand_summary()` function is used to target the cells in a grand summary and it is useful when applying a footnote with `tab_footnote()` or adding custom styles with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. The 'grand_summary' location is generated by the `grand_summary_rows()` function.

Usage

```
cells_grand_summary(columns = everything(), rows = everything())
```

Arguments

<code>columns</code>	The names of the columns that are to be targeted.
<code>rows</code>	The names of the rows that are to be targeted.

Value

A list object with the classes `cells_summary` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.

- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the groups and rows arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the rows argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `country pops` to create a `gt` table. Add some styling to a grand summary cell with `tab_style()` and `cells_grand_summary()`.

```
country pops %>%
  dplyr::filter(country_name == "Spain", year < 1970) %>%
  dplyr::select(-contains("country")) %>%
  gt(rownames_col = "year") %>%
  fmt_number(
    columns = population,
    decimals = 0
  ) %>%
  grand_summary_rows(
    columns = population,
    fns = list(
      change = ~max(.) - min(.)
    ),
    formatter = fmt_number,
    decimals = 0
  ) %>%
  tab_style(
    style = list(
      cell_text(style = "italic"),
      cell_fill(color = "lightblue")
    ),
    locations = cells_grand_summary(
      columns = population,
      rows = 1
    )
  )
```

Function ID

7-13

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cells_row_groups *Location helper for targeting row groups*

Description

The `cells_row_groups()` function is used to target the table's row groups when applying a footnote with [tab_footnote\(\)](#) or adding custom style with [tab_style\(\)](#). The function is expressly used in each of those functions' `locations` argument. The 'row_groups' location can be generated by the specifying a `groupname_col` in [gt\(\)](#), by introducing grouped data to [gt\(\)](#) (by way of [dplyr::group_by\(\)](#)), or, by specifying groups with the [tab_row_group\(\)](#) function.

Usage

```
cells_row_groups(groups = everything())
```

Arguments

`groups` The names of the row groups that are to be targeted.

Value

A list object with the classes `cells_row_groups` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- [cells_title\(\)](#): targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- [cells_stubhead\(\)](#): targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the [tab_stubhead\(\)](#) function.
- [cells_column_spanners\(\)](#): targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- [cells_column_labels\(\)](#): targets the column labels with its `columns` argument.
- [cells_row_groups\(\)](#): targets the row group labels in any available row groups using the `groups` argument.
- [cells_stub\(\)](#): targets row labels in the table stub using the `rows` argument.

- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the groups argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the groups and rows arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the rows argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*` helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `pizzaplace` to create a `gt` table with grouped data. Add a summary with the `summary_rows()` function and then add a footnote to the "peppr_salami" row group label with `tab_footnote()` and with `cells_row_groups()` in locations.

```
pizzaplace %>%
  dplyr::filter(name %in% c("soppressata", "peppr_salami")) %>%
  dplyr::group_by(name, size) %>%
  dplyr::summarize(`Pizzas Sold` = dplyr::n(), .groups = "drop") %>%
  gt(rowname_col = "size", groupname_col = "name") %>%
  summary_rows(
    groups = TRUE,
    columns = `Pizzas Sold`,
    fns = list(TOTAL = "sum"),
    formatter = fmt_number,
    decimals = 0,
    use_seps = TRUE
  ) %>%
  tab_footnote(
    footnote = "The Pepper-Salami.",
    cells_row_groups(groups = "peppr_salami")
  )
```

Function ID

7-9

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cells_source_notes *Location helper for targeting the source notes*

Description

The `cells_source_notes()` function is used to target all source notes in the footer section of the table. This is useful for adding custom styles to the source notes with `tab_style()` (using the `locations` argument). The 'source_notes' location is generated by the `tab_source_note()` function. This location helper function cannot be used for the `locations` argument of `tab_footnote()` and doing so will result in a warning (with no change made to the table).

Usage

```
cells_source_notes()
```

Value

A list object with the classes `cells_source_notes` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with `locations` corresponding roughly from top to bottom of a table:

- [cells_title\(\)](#): targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- [cells_stubhead\(\)](#): targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- [cells_column_spanners\(\)](#): targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- [cells_column_labels\(\)](#): targets the column labels with its `columns` argument.
- [cells_row_groups\(\)](#): targets the row group labels in any available row groups using the `groups` argument.
- [cells_stub\(\)](#): targets row labels in the table stub using the `rows` argument.
- [cells_body\(\)](#): targets data cells in the table body using intersections of columns and rows.
- [cells_summary\(\)](#): targets summary cells in the table body using the `groups` argument and intersections of columns and rows.

- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the groups and rows arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the rows argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a locations argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*` helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `gtcars` to create a `gt` table. Add a source note and style the source notes section.

```
gtcars %>%
  dplyr::select(mfr, model, msrp) %>%
  dplyr::slice(1:5) %>%
  gt() %>%
  tab_source_note(source_note = "From edmunds.com") %>%
  tab_style(
    style = cell_text(
      color = "#A9A9A9",
      size = "small"
    ),
    locations = cells_source_notes()
  )
```

Function ID

7-17

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

 cells_stub

Location helper for targeting cells in the table stub

Description

The `cells_stub()` function is used to target the table's stub cells and it is useful when applying a footnote with `tab_footnote()` or adding a custom style with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. Here are several ways that a stub location might be available in a `gt` table: (1) through specification of a `rowname_col` in `gt()`, (2) by introducing a data frame with row names to `gt()` with `rownames_to_stub = TRUE`, or (3) by using `summary_rows()` or `grand_summary_rows()` with neither of the previous two conditions being true.

Usage

```
cells_stub(rows = everything())
```

Arguments

`rows` The names of the rows that are to be targeted.

Value

A list object with the classes `cells_stub` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows

- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*()` helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `sza` to create a `gt` table. Color all of the month values in the table stub with `tab_style()`, using `cells_stub()` in `locations`.

```

sza %>%
  dplyr::filter(latitude == 20 & tst <= "1000") %>%
  dplyr::select(-latitude) %>%
  dplyr::filter(!is.na(sza)) %>%
  tidyr::spread(key = "tst", value = sza) %>%
  gt(rowname_col = "month") %>%
  sub_missing(missing_text = "") %>%
  tab_style(
    style = list(
      cell_fill(color = "darkblue"),
      cell_text(color = "white")
    ),
    locations = cells_stub()
  )

```

Function ID

7-10

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

cells_stubhead	<i>Location helper for targeting the table stubhead cell</i>
----------------	--

Description

The `cells_stubhead()` function is used to target the table stubhead location when applying a footnote with `tab_footnote()` or adding custom style with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. The 'stubhead' location is always present alongside the 'stub' location.

Usage

```
cells_stubhead()
```

Value

A list object with the classes `cells_stubhead` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).

- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`(`)` helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `pizzaplace` to create a `gt` table. Add a stubhead label with `tab_stubhead()` and then style it with `tab_style()` and `cells_stubhead()`.

```
pizzaplace %>%
  dplyr::mutate(month = as.numeric(substr(date, 6, 7))) %>%
  dplyr::group_by(month, type) %>%
  dplyr::summarize(sold = dplyr::n(), .groups = "drop") %>%
  dplyr::filter(month %in% 1:2) %>%
  gt(rowname_col = "type") %>%
  tab_stubhead(label = "type") %>%
  tab_style(
    style = cell_fill(color = "lightblue"),
    locations = cells_stubhead()
  )
```

Function ID

7-6

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

cells_stub_grand_summary

Location helper for targeting the stub cells in a grand summary

Description

The `cells_stub_grand_summary()` function is used to target the stub cells of a grand summary and it is useful when applying a footnote with `tab_footnote()` or adding custom styles with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. The `'stub_grand_summary'` location is generated by the `grand_summary_rows()` function.

Usage

```
cells_stub_grand_summary(rows = everything())
```

Arguments

rows The names of the rows that are to be targeted.

Value

A list object with the classes `cells_stub_grand_summary` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*` helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `countrypops` to create a **gt** table. Add some styling to a grand summary stub cell with with the `tab_style()` and `cells_stub_grand_summary()` functions.

```
countrypops %>%
  dplyr::filter(country_name == "Spain", year < 1970) %>%
  dplyr::select(-contains("country")) %>%
  gt(rowname_col = "year") %>%
  fmt_number(
    columns = population,
    decimals = 0
  ) %>%
  grand_summary_rows(
    columns = population,
    fns = list(change = ~max(.) - min(.)),
    formatter = fmt_number,
    decimals = 0
  ) %>%
  tab_style(
    style = cell_text(weight = "bold", transform = "uppercase"),
    locations = cells_stub_grand_summary(rows = "change")
  )
```

Function ID

7-15

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

`cells_stub_summary` *Location helper for targeting the stub cells in a summary*

Description

The `cells_stub_summary()` function is used to target the stub cells of summary and it is useful when applying a footnote with `tab_footnote()` or adding custom styles with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. The 'stub_summary' location is generated by the `summary_rows()` function.

Usage

```
cells_stub_summary(groups = everything(), rows = everything())
```

Arguments

groups	The names of the groups that are to be targeted.
rows	The names of the rows that are to be targeted.

Value

A list object with the classes `cells_stub_summary` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use [countrypops](#) to create a **gt** table. Add some styling to the summary data stub cells with [tab_style\(\)](#) and [cells_stub_summary\(\)](#).

```
countrypops %>%
  dplyr::filter(country_name == "Japan", year < 1970) %>%
  dplyr::select(-contains("country")) %>%
  dplyr::mutate(decade = paste0(substr(year, 1, 3), "0s")) %>%
  gt(
    rowname_col = "year",
    groupname_col = "decade"
  ) %>%
  fmt_number(
    columns = population,
    decimals = 0
  ) %>%
  summary_rows(
    groups = "1960s",
    columns = population,
    fns = list("min", "max"),
    formatter = fmt_number,
    decimals = 0
  ) %>%
  tab_style(
    style = list(
      cell_text(
        weight = "bold",
        transform = "capitalize"
      ),
      cell_fill(
        color = "lightblue",
        alpha = 0.5
      )
    ),
    locations = cells_stub_summary(
      groups = "1960s"
    )
  )
```

Function ID

7-14

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stubhead\(\)](#),

[cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cells_summary

Location helper for targeting group summary cells

Description

The `cells_summary()` function is used to target the cells in a group summary and it is useful when applying a footnote with `tab_footnote()` or adding a custom style with `tab_style()`. The function is expressly used in each of those functions' `locations` argument. The 'summary' location is generated by the `summary_rows()` function.

Usage

```
cells_summary(
  groups = everything(),
  columns = everything(),
  rows = everything()
)
```

Arguments

<code>groups</code>	The names of the groups that the summary rows reside in.
<code>columns</code>	The names of the columns that are to be targeted.
<code>rows</code>	The names of the rows that are to be targeted.

Value

A list object with the classes `cells_summary` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with `locations` corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.

- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `country pops` to create a `gt` table. Add some styling to the summary data cells with `tab_style()`, using `cells_summary()` in `locations`.

```
country pops %>%
  dplyr::filter(country_name == "Japan", year < 1970) %>%
  dplyr::select(-contains("country")) %>%
  dplyr::mutate(decade = paste0(substr(year, 1, 3), "0s")) %>%
  gt(
    rowname_col = "year",
    groupname_col = "decade"
  ) %>%
  fmt_number(
    columns = population,
    decimals = 0
  ) %>%
  summary_rows(
    groups = "1960s",
    columns = population,
    fns = list("min", "max"),
    formatter = fmt_number,
    decimals = 0
  ) %>%
  tab_style(
    style = list(
      cell_text(style = "italic"),
      cell_fill(color = "lightblue")
    ),
  ),
```

```

    locations = cells_summary(
      groups = "1960s",
      columns = population,
      rows = 1
    )
  ) %>%
  tab_style(
    style = list(
      cell_text(style = "italic"),
      cell_fill(color = "lightgreen")
    ),
    locations = cells_summary(
      groups = "1960s",
      columns = population,
      rows = 2
    )
  )
)

```

Function ID

7-12

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

 cells_title

Location helper for targeting the table title and subtitle

Description

The `cells_title()` function is used to target the table title or subtitle when applying a footnote with [tab_footnote\(\)](#) or adding custom style with [tab_style\(\)](#). The function is expressly used in each of those functions' `locations` argument. The header location where the title and optionally the subtitle reside is generated by the [tab_header\(\)](#) function.

Usage

```
cells_title(groups = c("title", "subtitle"))
```

Arguments

`groups` We can either specify "title", "subtitle", or both (the default) in a vector to target the title element, the subtitle element, or both elements.

Value

A list object of classes `cells_title` and `location_cells`.

Overview of Location Helper Functions

Location helper functions can be used to target cells with virtually any function that has a `locations` argument. Here is a listing of all of the location helper functions, with locations corresponding roughly from top to bottom of a table:

- `cells_title()`: targets the table title or the table subtitle depending on the value given to the `groups` argument ("title" or "subtitle").
- `cells_stubhead()`: targets the stubhead location, a cell of which is only available when there is a stub; a label in that location can be created by using the `tab_stubhead()` function.
- `cells_column_spanners()`: targets the spanner column labels with the `spanners` argument; spanner column labels appear above the column labels.
- `cells_column_labels()`: targets the column labels with its `columns` argument.
- `cells_row_groups()`: targets the row group labels in any available row groups using the `groups` argument.
- `cells_stub()`: targets row labels in the table stub using the `rows` argument.
- `cells_body()`: targets data cells in the table body using intersections of columns and rows.
- `cells_summary()`: targets summary cells in the table body using the `groups` argument and intersections of columns and rows.
- `cells_grand_summary()`: targets cells of the table's grand summary using intersections of columns and rows
- `cells_stub_summary()`: targets summary row labels in the table stub using the `groups` and `rows` arguments.
- `cells_stub_grand_summary()`: targets grand summary row labels in the table stub using the `rows` argument.
- `cells_footnotes()`: targets all footnotes in the table footer (cannot be used with `tab_footnote()`).
- `cells_source_notes()`: targets all source notes in the table footer (cannot be used with `tab_footnote()`).

When using any of the location helper functions with an appropriate function that has a `locations` argument (e.g., `tab_style()`), multiple locations can be targeted by enclosing several `cells_*`() helper functions in a `list()` (e.g., `list(cells_body(), cells_grand_summary())`).

Examples

Use `sp500` to create a `gt` table. Add a header with a title, and then add a footnote to the title with `tab_footnote()` and `cells_title()` (in `locations`).

```
sp500 %>%
  dplyr::filter(date >= "2015-01-05" & date <="2015-01-10") %>%
  dplyr::select(-c(adj_close, volume, high, low)) %>%
  gt() %>%
```

```

tab_header(title = "S&P 500") %>%
tab_footnote(
  footnote = "All values in USD.",
  locations = cells_title(groups = "title")
)

```

Function ID

7-5

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cell_borders

Helper for defining custom borders for table cells

Description

The `cell_borders()` helper function is to be used with the `tab_style()` function, which itself allows for the setting of custom styles to one or more cells. Specifically, the call to `cell_borders()` should be bound to the `styles` argument of `tab_style()`. The `selection` argument is where we define which borders should be modified (e.g., "left", "right", etc.). With that selection, the color, style, and weight of the selected borders can then be modified.

Usage

```
cell_borders(sides = "all", color = "#000000", style = "solid", weight = px(1))
```

Arguments

`sides` The border sides to be modified. Options include "left", "right", "top", and "bottom". For all borders surrounding the selected cells, we can use the "all" option.

`color, style, weight`

The border color, style, and weight. The color can be defined with a color name or with a hexadecimal color code. The default color value is "#000000" (black). The style can be one of either "solid" (the default), "dashed", "dotted", or "hidden". The weight of the border lines is to be given in pixel values (the `px()` helper function is useful for this. The default value for weight is "1px". Borders for any defined sides can be removed by supplying NULL to any of color, style, or weight.

Value

A list object of class `cell_styles`.

Examples

Add horizontal border lines for all table body rows in `exibble` using `tab_style()` and `cell_borders()`.

```
exibble %>%
  gt() %>%
  tab_options(row.stripping.include_table_body = FALSE) %>%
  tab_style(
    style = cell_borders(
      sides = c("top", "bottom"),
      color = "red",
      weight = px(1.5),
      style = "solid"
    ),
    locations = cells_body(
      columns = everything(),
      rows = everything()
    )
  )
)
```

Incorporate different horizontal and vertical borders at several locations. This uses multiple `cell_borders()` and `cells_body()` calls within `list()`s.

```
exibble %>%
  gt() %>%
  tab_style(
    style = list(
      cell_borders(
        sides = c("top", "bottom"),
        color = "#FF0000",
        weight = px(2)
      ),
      cell_borders(
        sides = c("left", "right"),
        color = "#0000FF",
        weight = px(2)
      )
    ),
    locations = list(
      cells_body(
        columns = num,
        rows = is.na(num)
      ),
      cells_body(
        columns = currency,

```

```

        rows = is.na(currency)
    )
)
)

```

Function ID

7-21

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

cell_fill

Helper for defining custom fills for table cells

Description

The `cell_fill()` helper function is to be used with the `tab_style()` function, which itself allows for the setting of custom styles to one or more cells. Specifically, the call to `cell_fill()` should be bound to the `styles` argument of `tab_style()`.

Usage

```
cell_fill(color = "#D3D3D3", alpha = NULL)
```

Arguments

color	The fill color. If nothing is provided, then "#D3D3D3" (light gray) will be used as a default.
alpha	An optional alpha transparency value for the color as single value in the range of 0 (fully transparent) to 1 (fully opaque). If not provided the fill color will either be fully opaque or use alpha information from the color value if it is supplied in the #RRGGBBAA format.

Value

A list object of class `cell_styles`.

Examples

Use `exibble` to create a `gt` table. Add styles with `tab_style()` and the `cell_fill()` helper function.

```
exibble %>%
  dplyr::select(num, currency) %>%
  gt() %>%
  fmt_number(
    columns = c(num, currency),
    decimals = 1
  ) %>%
  tab_style(
    style = cell_fill(color = "lightblue"),
    locations = cells_body(
      columns = num,
      rows = num >= 5000
    )
  ) %>%
  tab_style(
    style = cell_fill(color = "gray85"),
    locations = cells_body(
      columns = currency,
      rows = currency < 100
    )
  )
)
```

Function ID

7-20

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

cell_text

Helper for defining custom text styles for table cells

Description

This helper function is to be used with the `tab_style()` function, which itself allows for the setting of custom styles to one or more cells. We can also define several styles within a single call of `cell_text()` and `tab_style()` will reliably apply those styles to the targeted element.

Usage

```

cell_text(
  color = NULL,
  font = NULL,
  size = NULL,
  align = NULL,
  v_align = NULL,
  style = NULL,
  weight = NULL,
  stretch = NULL,
  decorate = NULL,
  transform = NULL,
  whitespace = NULL,
  indent = NULL
)

```

Arguments

color	The text color.
font	The font or collection of fonts (subsequent font names are) used as fallbacks.
size	The size of the font. Can be provided as a number that is assumed to represent px values (or could be wrapped in the <code>px()</code> helper function. We can also use one of the following absolute size keywords: "xx-small", "x-small", "small", "medium", "large", "x-large", or "xx-large".
align	The text alignment. Can be one of either "center", "left", "right", or "justify".
v_align	The vertical alignment of the text in the cell. Options are "middle", "top", or "bottom".
style	The text style. Can be one of either "normal", "italic", or "oblique".
weight	The weight of the font. Can be a text-based keyword such as "normal", "bold", "lighter", "bolder", or, a numeric value between 1 and 1000, inclusive. Note that only variable fonts may support the numeric mapping of weight.
stretch	Allows for text to either be condensed or expanded. We can use one of the following text-based keywords to describe the degree of condensation/expansion: "ultra-condensed", "extra-condensed", "condensed", "semi-condensed", "normal", "semi-expanded", "expanded", "extra-expanded", or "ultra-expanded". Alternatively, we can supply percentage values from 0% to 200%, inclusive. Negative percentage values are not allowed.
decorate	Allows for text decoration effect to be applied. Here, we can use "overline", "line-through", or "underline".
transform	Allows for the transformation of text. Options are "uppercase", "lowercase", or "capitalize".
whitespace	A white-space preservation option. By default, runs of white-space will be collapsed into single spaces but several options exist to govern how white-space

is collapsed and how lines might wrap at soft-wrap opportunities. The keyword options are "normal", "nowrap", "pre", "pre-wrap", "pre-line", and "break-spaces".

indent The indentation of the text. Can be provided as a number that is assumed to represent px values (or could be wrapped in the `px()` helper function. Alternatively, this can be given as a percentage (easily constructed with `pct()`).

Value

A list object of class `cell_styles`.

Examples

Use `exibble` to create a **gt** table. Add styles with `tab_style()` and the `cell_text()` helper function.

```
exibble %>%
  dplyr::select(num, currency) %>%
  gt() %>%
  fmt_number(
    columns = c(num, currency),
    decimals = 1
  ) %>%
  tab_style(
    style = cell_text(weight = "bold"),
    locations = cells_body(
      columns = num,
      rows = num >= 5000
    )
  ) %>%
  tab_style(
    style = cell_text(style = "italic"),
    locations = cells_body(
      columns = currency,
      rows = currency < 100
    )
  )
)
```

Function ID

7-19

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

cols_align	<i>Set the alignment of columns</i>
------------	-------------------------------------

Description

The individual alignments of columns (which includes the column labels and all of their data cells) can be modified. We have the option to align text to the left, the center, and the right. In a less explicit manner, we can allow **gt** to automatically choose the alignment of each column based on the data type (with the auto option).

Usage

```
cols_align(
  data,
  align = c("auto", "left", "center", "right"),
  columns = everything()
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
align	The alignment type. This can be any of "center", "left", or "right" for center-, left-, or right-alignment. Alternatively, the "auto" option (the default), will automatically align values in columns according to the data type (see the Details section for specifics on which alignments are applied).
columns	An optional vector of column names for which the alignment should be applied. If nothing is supplied, or if columns is TRUE, then the chosen alignment affects all columns.

Details

When you create a **gt** table object using `gt()`, automatic alignment of column labels and their data cells is performed. By default, left-alignment is applied to columns of class character, Date, or POSIXct; center-alignment is for columns of class logical, factor, or list; and right-alignment is used for the numeric and integer columns.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a **gt** table. Align the population column data to the left.

```
countrypops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
```

```

tail(5) %>%
gt() %>%
cols_align(
  align = "left",
  columns = population
)

```

Function ID

4-1

See Also

Other column modification functions: [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_range\(\)](#), [cols_merge_uncert\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

cols_hide

Hide one or more columns

Description

The `cols_hide()` function allows us to hide one or more columns from appearing in the final output table. While it's possible and often desirable to omit columns from the input table data before introduction to the `gt()` function, there can be cases where the data in certain columns is useful (as a column reference during formatting of other columns) but the final display of those columns is not necessary.

Usage

```
cols_hide(data, columns)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The column names to hide from the output display table. Values provided that do not correspond to column names will be disregarded.

Details

The hiding of columns is internally a rendering directive, so, all columns that are 'hidden' are still accessible and useful in any expression provided to a rows argument. Furthermore, the `cols_hide()` function (as with many `gt` functions) can be placed anywhere in a pipeline of `gt` function calls (acting as a promise to hide columns when the timing is right). However there's perhaps greater readability when placing this call closer to the end of such a pipeline. The `cols_hide()` function quietly changes the visible state of a column (much like the `cols_unhide()` function) and doesn't yield warnings or messages when changing the state of already-invisible columns.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a `gt` table. Hide the `country_code_2` and `country_code_3` columns with `cols_hide()`.

```
countrypops %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_hide(columns = c(country_code_2, country_code_3))
```

Use `countrypops` to create a `gt` table. Use the population column to provide the conditional placement of footnotes, then hide that column and one other. Note that the order of the `cols_hide()` and `tab_footnote()` statements has no effect.

```
countrypops %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_hide(columns = c(country_code_3, population)) %>%
  tab_footnote(
    footnote = "Population above 3,000,000.",
    locations = cells_body(
      columns = year,
      rows = population > 3000000
    )
  )
```

Function ID

4-7

See Also

`cols_unhide()` to perform the inverse operation.

Other column modification functions: `cols_align()`, `cols_label()`, `cols_merge_n_pct()`, `cols_merge_range()`, `cols_merge_uncert()`, `cols_merge()`, `cols_move_to_end()`, `cols_move_to_start()`, `cols_move()`, `cols_unhide()`, `cols_width()`

cols_label *Relabel one or more columns*

Description

Column labels can be modified from their default values (the names of the columns from the input table data). When you create a **gt** table object using `gt()`, column names effectively become the column labels. While this serves as a good first approximation, column names aren't often appealing as column labels in a **gt** output table. The `cols_label()` function provides the flexibility to relabel one or more columns and we even have the option to use the `md()` or `html()` helper functions for rendering column labels from Markdown or using HTML.

Usage

```
cols_label(.data, ..., .list = list2(...))
```

Arguments

<code>.data</code>	A table object that is created using the <code>gt()</code> function.
<code>...</code>	One or more named arguments of column names from the input <code>.data</code> table along with their labels for display as the column labels. We can optionally wrap the column labels with <code>md()</code> (to interpret text as Markdown) or <code>html()</code> (to interpret text as HTML).
<code>.list</code>	Allows for the use of a list as an input alternative to <code>...</code>

Details

It's important to note that while columns can be freely relabeled, we continue to refer to columns by their original column names. Column names in a tibble or data frame must be unique whereas column labels in **gt** have no requirement for uniqueness (which is useful for labeling columns as, say, measurement units that may be repeated several times—usually under different spanner column labels). Thus, we can still easily distinguish between columns in other **gt** function calls (e.g., in all of the `fmt*`() functions) even though we may lose distinguishability in column labels once they have been relabeled.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a **gt** table. Relabel all the table's columns with the `cols_label()` function to improve its presentation.

```
countrypops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
```

```
tail(5) %>%
gt() %>%
cols_label(
  country_name = "Name",
  year = "Year",
  population = "Population"
)
```

#'

Using `countrypops` again to create a `gt` table, we label columns just as before but this time make the column labels bold through Markdown formatting.

```
countrypops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_label(
    country_name = md("**Name**"),
    year = md("**Year**"),
    population = md("**Population**")
  )
```

Function ID

4-3

See Also

Other column modification functions: `cols_align()`, `cols_hide()`, `cols_merge_n_pct()`, `cols_merge_range()`, `cols_merge_uncert()`, `cols_merge()`, `cols_move_to_end()`, `cols_move_to_start()`, `cols_move()`, `cols_unhide()`, `cols_width()`

cols_merge

Merge data from two or more columns to a single column

Description

This function takes input from two or more columns and allows the contents to be merged them into a single column, using a pattern that specifies the formatting. We can specify which columns to merge together in the `columns` argument. The string-combining pattern is given in the `pattern` argument. The first column in the `columns` series operates as the target column (i.e., will undergo mutation) whereas all following columns will be untouched. There is the option to hide the non-target columns (i.e., second and subsequent columns given in `columns`).

Usage

```
cols_merge(
  data,
  columns,
  hide_columns = columns[-1],
  pattern = paste0("{", seq_along(columns), "}", collapse = " ")
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns that will participate in the merging process. The first column name provided will be the target column (i.e., undergo mutation) and the other columns will serve to provide input.
hide_columns	Any column names provided here will have their state changed to hidden (via internal use of <code>cols_hide()</code> if they aren't already hidden. This is convenient if the shared purpose of these specified columns is only to provide string input to the target column. To suppress any hiding of columns, FALSE can be used here.
pattern	A formatting pattern that specifies the arrangement of the column values and any string literals. We need to use column numbers (corresponding to the position of columns provided in <code>columns</code>) within the pattern. These indices are to be placed in curly braces (e.g., {1}). All characters outside of braces are taken to be string literals.

Details

There are three other column-merging functions that offer specialized behavior that is optimized for common table tasks: `cols_merge_range()`, `cols_merge_uncert()`, and `cols_merge_n_pct()`. These functions operate similarly, where the non-target columns can be optionally hidden from the output table through the `autohide` option.

Value

An object of class `gt_tbl`.

Examples

Use `sp500` to create a `gt` table. Use the `cols_merge()` function to merge the open & close columns together, and, the low & high columns (putting an em dash between both). Relabel the columns with `cols_label()`.

```
sp500 %>%
  dplyr::slice(50:55) %>%
  dplyr::select(-volume, -adj_close) %>%
  gt() %>%
  cols_merge(
    columns = c(open, close),
    pattern = "{1}&mdash;{2}"
```



```

) %>%
cols_merge(
  columns = c(low, high),
  pattern = "{1}&mdash;{2}"
) %>%
cols_label(
  open = "open/close",
  low = "low/high"
)

```

Function ID

4-12

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_range\(\)](#), [cols_merge_uncert\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

cols_merge_n_pct

*Merge two columns to combine counts and percentages***Description**

The `cols_merge_n_pct()` function is a specialized variant of the [cols_merge\(\)](#) function. It operates by taking two columns that constitute both a count (`col_n`) and a fraction of the total population (`col_pct`) and merges them into a single column. What results is a column containing both counts and their associated percentages (e.g., 12 (23.2%)). The column specified in `col_pct` is dropped from the output table.

Usage

```
cols_merge_n_pct(data, col_n, col_pct, autohide = TRUE)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>col_n</code>	A column that contains values for the count component.
<code>col_pct</code>	A column that contains values for the percentage component. This column should be formatted such that percentages are displayed (e.g., with fmt_percent()).
<code>autohide</code>	An option to automatically hide the column specified as <code>col_pct</code> . Any columns with their state changed to hidden will behave the same as before, they just won't be displayed in the finalized table.

Details

This function could be somewhat replicated using `cols_merge()`, however, `cols_merge_n_pct()` employs the following specialized semantics for NA and zero-value handling:

1. NAs in `col_n` result in missing values for the merged column (e.g., $NA + 10.2\% = NA$)
2. NAs in `col_pct` (but not `col_n`) result in base values only for the merged column (e.g., $13 + NA = 13$)
3. NAs both `col_n` and `col_pct` result in missing values for the merged column (e.g., $NA + NA = NA$)
4. If a zero (0) value is in `col_n` then the formatted output will be "0" (i.e., no percentage will be shown)

Any resulting NA values in the `col_n` column following the merge operation can be easily formatted using the `sub_missing()` function. Separate calls of `sub_missing()` can be used for the `col_n` and `col_pct` columns for finer control of the replacement values. It is the responsibility of the user to ensure that values are correct in both the `col_n` and `col_pct` columns (this function neither generates nor recalculates values in either). Formatting of each column can be done independently in separate `fmt_number()` and `fmt_percent()` calls.

This function is part of a set of four column-merging functions. The other two are the general `cols_merge()` function and the specialized `cols_merge_uncert()` and `cols_merge_range()` functions. These functions operate similarly, where the non-target columns can be optionally hidden from the output table through the `hide_columns` or `autohide` options.

Value

An object of class `gt_tbl`.

Examples

Use `pizzaplace` to create a `gt` table that displays the counts and percentages of the top 3 pizzas sold by pizza category in 2015. The `cols_merge_n_pct()` function is used to merge the `n` and `frac` columns (and the `frac` column is formatted using `fmt_percent()`).

```
pizzaplace %>%
  dplyr::group_by(name, type, price) %>%
  dplyr::summarize(
    n = dplyr::n(),
    frac = n/nrow(.),
    .groups = "drop"
  ) %>%
  dplyr::arrange(type, dplyr::desc(n)) %>%
  dplyr::group_by(type) %>%
  dplyr::slice_head(n = 3) %>%
  gt(
    rowname_col = "name",
    groupname_col = "type"
  ) %>%
  fmt_currency(price) %>%
```

```

fmt_percent(frac) %>%
cols_merge_n_pct(
  col_n = n,
  col_pct = frac
) %>%
cols_label(
  n = md("*N* (%)"),
  price = "Price"
) %>%
tab_style(
  style = cell_text(font = "monospace"),
  locations = cells_stub()
) %>%
tab_stubhead(md("Cat. and \nPizza Code")) %>%
tab_header(title = "Top 3 Pizzas Sold by Category in 2015") %>%
tab_options(table.width = px(512))

```

Function ID

4-11

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_range\(\)](#), [cols_merge_uncert\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

<code>cols_merge_range</code>	<i>Merge two columns to a value range column</i>
-------------------------------	--

Description

The `cols_merge_range()` function is a specialized variant of the [cols_merge\(\)](#) function. It operates by taking a two columns that constitute a range of values (`col_begin` and `col_end`) and merges them into a single column. What results is a column containing both values separated by a long dash (e.g., `12.0 - 20.0`). The column specified in `col_end` is dropped from the output table.

Usage

```
cols_merge_range(data, col_begin, col_end, sep = "--", autohide = TRUE)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>col_begin</code>	A column that contains values for the start of the range.
<code>col_end</code>	A column that contains values for the end of the range.

sep	The separator text that indicates the values are ranged. The default value of "--" indicates that an en dash will be used for the range separator. Using "---" will be taken to mean that an em dash should be used. Should you want these special symbols to be taken literally, they can be supplied within the base <code>I()</code> function.
autohide	An option to automatically hide the column specified as <code>col_end</code> . Any columns with their state changed to hidden will behave the same as before, they just won't be displayed in the finalized table.

Details

This function could be somewhat replicated using `cols_merge()`, however, `cols_merge_range()` employs the following specialized operations for NA handling:

1. NAs in `col_begin` (but not `col_end`) result in a display of only
2. NAs in `col_end` (but not `col_begin`) result in a display of only the `col_begin` values only for the merged column (this is the converse of the previous)
3. NAs both in `col_begin` and `col_end` result in missing values for the merged column

Any resulting NA values in the `col_begin` column following the merge operation can be easily formatted using the `sub_missing()` function. Separate calls of `sub_missing()` can be used for the `col_begin` and `col_end` columns for finer control of the replacement values.

This function is part of a set of four column-merging functions. The other two are the general `cols_merge()` function and the specialized `cols_merge_uncert()` and `cols_merge_n_pct()` functions. These functions operate similarly, where the non-target columns can be optionally hidden from the output table through the `hide_columns` or `autohide` options.

Value

An object of class `gt_tbl`.

Examples

Use `gtcars` to create a `gt` table, keeping only the `model`, `mpg_c`, and `mpg_h` columns. Merge the "mpg*" columns together as a single range column (which is labeled as *MPG*, in italics) using the `cols_merge_range()` function.

```
gtcars %>%
  dplyr::select(model, starts_with("mpg")) %>%
  dplyr::slice(1:8) %>%
  gt() %>%
  cols_merge_range(
    col_begin = mpg_c,
    col_end = mpg_h
  ) %>%
  cols_label(mpg_c = md("*MPG*"))
```

Function ID

4-10

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_uncert\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

cols_merge_uncert	<i>Merge columns to a value-with-uncertainty column</i>
-------------------	---

Description

The `cols_merge_uncert()` function is a specialized variant of the [cols_merge\(\)](#) function. It takes as input a base value column (`col_val`) and either: (1) a single uncertainty column, or (2) two columns representing lower and upper uncertainty bounds. These columns will be essentially merged in a single column (that of `col_val`). What results is a column with values and associated uncertainties (e.g., 12.0 ± 0.1), and any columns specified in `col_uncert` are hidden from appearing the output table.

Usage

```
cols_merge_uncert(data, col_val, col_uncert, sep = " +/- ", autohide = TRUE)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>col_val</code>	A single column name that contains the base values. This is the column where values will be mutated.
<code>col_uncert</code>	Either one or two column names that contain the uncertainty values. The most common case involves supplying a single column with uncertainties; these values will be combined with those in <code>col_val</code> . Less commonly, lower and upper uncertainty bounds may be different. For that case two columns (representing lower and upper uncertainty values away from <code>col_val</code> , respectively) should be provided. Since we often don't want the uncertainty value columns in the output table, we can automatically hide any <code>col_uncert</code> columns through the <code>autohide</code> option.
<code>sep</code>	The separator text that contains the uncertainty mark for a single uncertainty value. The default value of " +/- " indicates that an appropriate plus/minus mark will be used depending on the output context. Should you want this special symbol to be taken literally, it can be supplied within the I() function.
<code>autohide</code>	An option to automatically hide any columns specified in <code>col_uncert</code> . Any columns with their state changed to 'hidden' will behave the same as before, they just won't be displayed in the finalized table. By default, this is set to TRUE.

Details

This function could be somewhat replicated using `cols_merge()` in the case where a single column is supplied for `col_uncert`, however, `cols_merge_uncert()` employs the following specialized semantics for NA handling:

1. NAs in `col_val` result in missing values for the merged column (e.g., $NA + 0.1 = NA$)
2. NAs in `col_uncert` (but not `col_val`) result in base values only for the merged column (e.g., $12.0 + NA = 12.0$)
3. NAs both `col_val` and `col_uncert` result in missing values for the merged column (e.g., $NA + NA = NA$)

Any resulting NA values in the `col_val` column following the merge operation can be easily formatted using the `sub_missing()` function.

This function is part of a set of four column-merging functions. The other two are the general `cols_merge()` function and the specialized `cols_merge_range()` and `cols_merge_n_pct()` functions. These functions operate similarly, where the non-target columns can be optionally hidden from the output table through the `hide_columns` or `autohide` options.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table, keeping only the `currency` and `num` columns. Merge columns into one with a base value and uncertainty (after formatting the `num` column) using the `cols_merge_uncert()` function.

```
exibble %>%
  dplyr::select(currency, num) %>%
  dplyr::slice(1:7) %>%
  gt() %>%
  fmt_number(
    columns = num,
    decimals = 3,
    use_seps = FALSE
  ) %>%
  cols_merge_uncert(
    col_val = currency,
    col_uncert = num
  ) %>%
  cols_label(currency = "value + uncert.")
```

Function ID

4-9

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_range\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

cols_move	<i>Move one or more columns</i>
-----------	---------------------------------

Description

On those occasions where you need to move columns this way or that way, we can make use of the `cols_move()` function. While it's true that the movement of columns can be done upstream of `gt`, it is much easier and less error prone to use the function provided here. The movement procedure here takes one or more specified columns (in the `columns` argument) and places them to the right of a different column (the `after` argument). The ordering of the columns to be moved is preserved, as is the ordering of all other columns in the table.

Usage

```
cols_move(data, columns, after)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>columns</code>	The column names to move to as a group to a different position. The order of the remaining columns will be preserved.
<code>after</code>	A column name used to anchor the insertion of the moved columns. All of the moved columns will be placed to the right of this column.

Details

The columns supplied in `columns` must all exist in the table and none of them can be in the `after` argument. The `after` column must also exist and only one column should be provided here. If you need to place one or columns at the beginning of the column series, the [cols_move_to_start\(\)](#) function should be used. Similarly, if those columns to move should be placed at the end of the column series then use [cols_move_to_end\(\)](#).

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a `gt` table. With the remaining columns, position population after `country_name` with the `cols_move()` function.

```
countrypops %>%  
  dplyr::select(-contains("code")) %>%  
  dplyr::filter(country_name == "Mongolia") %>%  
  tail(5) %>%  
  gt() %>%  
  cols_move(  
    columns = population,  
    after = country_name  
  )
```

Function ID

4-6

See Also

Other column modification functions: `cols_align()`, `cols_hide()`, `cols_label()`, `cols_merge_n_pct()`, `cols_merge_range()`, `cols_merge_uncert()`, `cols_merge()`, `cols_move_to_end()`, `cols_move_to_start()`, `cols_unhide()`, `cols_width()`

<code>cols_move_to_end</code>	<i>Move one or more columns to the end</i>
-------------------------------	--

Description

It's possible to move a set of columns to the end of the column series, we only need to specify which columns are to be moved. While this can be done upstream of `gt`, this function makes to process much easier and it's less error prone. The ordering of the columns that are moved to the end is preserved (same with the ordering of all other columns in the table).

Usage

```
cols_move_to_end(data, columns)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The column names to move to the right-most side of the table. The order in which columns are provided will be preserved (as is the case with the remaining columns).

Details

The columns supplied in `columns` must all exist in the table. If you need to place one or columns at the start of the column series, the `cols_move_to_start()` function should be used. More control is offered with the `cols_move()` function, where columns could be placed after a specific column.

Value

An object of class `gt_tbl`.

Examples

Use `country pops` to create a `gt` table. With the remaining columns, move the year column to the end of the column series with the `cols_move_to_end()` function.

```
country pops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_move_to_end(columns = year)
```

Use `country pops` to create a `gt` table. With the remaining columns, move year and country_name to the end of the column series.

```
country pops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_move_to_end(columns = c(year, country_name))
```

Function ID

4-5

See Also

Other column modification functions: `cols_align()`, `cols_hide()`, `cols_label()`, `cols_merge_n_pct()`, `cols_merge_range()`, `cols_merge_uncert()`, `cols_merge()`, `cols_move_to_start()`, `cols_move()`, `cols_unhide()`, `cols_width()`

cols_move_to_start *Move one or more columns to the start*

Description

We can easily move set of columns to the beginning of the column series and we only need to specify which columns. It's possible to do this upstream of `gt`, however, it is easier with this function and it presents less possibility for error. The ordering of the columns that are moved to the start is preserved (same with the ordering of all other columns in the table).

Usage

```
cols_move_to_start(data, columns)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The column names to move to the left-most side of the table. The order in which columns are provided will be preserved (as is the case with the remaining columns).

Details

The columns supplied in `columns` must all exist in the table. If you need to place one or columns at the end of the column series, the `cols_move_to_end()` function should be used. More control is offered with the `cols_move()` function, where columns could be placed after a specific column.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a `gt` table. With the remaining columns, move the year column to the start of the column series with `cols_move_to_start()`.

```
countrypops %>%  
  dplyr::select(-contains("code")) %>%  
  dplyr::filter(country_name == "Mongolia") %>%  
  tail(5) %>%  
  gt() %>%  
  cols_move_to_start(columns = year)
```

Use `countrypops` to create a `gt` table. With the remaining columns, move year and population to the start.

```

countrypops %>%
  dplyr::select(-contains("code")) %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_move_to_start(columns = c(year, population))

```

Function ID

4-4

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_range\(\)](#), [cols_merge_uncert\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#), [cols_width\(\)](#)

 cols_unhide

Unhide one or more columns

Description

The `cols_unhide()` function allows us to take one or more hidden columns (usually made so via the `cols_hide()` function) and make them visible in the final output table. This may be important in cases where the user obtains a `gt_tbl` object with hidden columns and there is motivation to reveal one or more of those.

Usage

```
cols_unhide(data, columns)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The column names to unhide from the output display table. Values provided that do not correspond to column names will be disregarded.

Details

The hiding and unhiding of columns is internally a rendering directive, so, all columns that are 'hidden' are still accessible and useful in any expression provided to a rows argument. The `cols_unhide()` function quietly changes the visible state of a column (much like the `cols_hide()` function) and doesn't yield warnings or messages when changing the state of already-visible columns.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a `gt` table. Hide the `country_code_2` and `country_code_3` columns with `cols_hide()`.

```
tab_1 <-
  countrypops %>%
  dplyr::filter(country_name == "Mongolia") %>%
  tail(5) %>%
  gt() %>%
  cols_hide(columns = c(country_code_2, country_code_3))
```

```
tab_1
```

If the `tab_1` object is provided without the code or source data to regenerate it, and, the user wants to reveal otherwise hidden columns then the `cols_unhide()` function becomes useful.

```
tab_1 %>% cols_unhide(columns = country_code_2)
```

Function ID

4-8

See Also

`cols_hide()` to perform the inverse operation.

Other column modification functions: `cols_align()`, `cols_hide()`, `cols_label()`, `cols_merge_n_pct()`, `cols_merge_range()`, `cols_merge_uncert()`, `cols_merge()`, `cols_move_to_end()`, `cols_move_to_start()`, `cols_move()`, `cols_width()`

 cols_width

Set the widths of columns

Description

Manual specifications of column widths can be performed using the `cols_width()` function. We choose which columns get specific widths. This can be in units of pixels (easily set by use of the `px()` helper function), or, as percentages (where the `pct()` helper function is useful). Width assignments are supplied in `...` through two-sided formulas, where the left-hand side defines the target columns and the right-hand side is a single dimension.

Usage

```
cols_width(.data, ..., .list = list2(...))
```

Arguments

<code>.data</code>	A table object that is created using the <code>gt()</code> function.
<code>...</code>	Expressions for the assignment of column widths for the table columns in <code>.data</code> . Two-sided formulas (e.g, <code><LHS> ~ <RHS></code>) can be used, where the left-hand side corresponds to selections of columns and the right-hand side evaluates to single-length character values in the form <code>{##}px</code> (i.e., pixel dimensions); the <code>px()</code> helper function is best used for this purpose. Column names should be enclosed in <code>c()</code> . The column-based select helpers <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , and <code>everything()</code> can be used in the LHS. Subsequent expressions that operate on the columns assigned previously will result in overwriting column width values (both in the same <code>cols_width()</code> call and across separate calls). All other columns can be assigned a default width value by using <code>everything()</code> on the left-hand side.
<code>.list</code>	Allows for the use of a list as an input alternative to <code>...</code>

Details

Column widths can be set as absolute or relative values (with `px` and percentage values). Those columns not specified are treated as having variable width. The sizing behavior for column widths depends on the combination of value types, and, whether a table width has been set (which could, itself, be expressed as an absolute or relative value). Widths for the table and its container can be individually modified with the `table.width` and `container.width` arguments within `tab_options()`.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. We can specify the widths of columns with `cols_width()`. This is done with named arguments in `...`, specifying the exact widths for table columns (using `everything()` at the end will capture all remaining columns).

```
exibble %>%
  dplyr::select(
    num, char, date,
    datetime, row
  ) %>%
  gt() %>%
  cols_width(
    num ~ px(150),
    ends_with("r") ~ px(100),
    starts_with("date") ~ px(200),
    everything() ~ px(60)
  )
```

Function ID

4-2

See Also

Other column modification functions: [cols_align\(\)](#), [cols_hide\(\)](#), [cols_label\(\)](#), [cols_merge_n_pct\(\)](#), [cols_merge_range\(\)](#), [cols_merge_uncert\(\)](#), [cols_merge\(\)](#), [cols_move_to_end\(\)](#), [cols_move_to_start\(\)](#), [cols_move\(\)](#), [cols_unhide\(\)](#)

countrypops

Yearly populations of countries from 1960 to 2017

Description

A dataset that presents yearly, total populations of countries. Total population is based on counts of all residents regardless of legal status or citizenship. Country identifiers include the English-language country names, and the 2- and 3-letter ISO 3166-1 country codes. Each row contains a population value for a given year (from 1960 to 2017). Any NA values for populations indicate the non-existence of the country during that year.

Usage

```
countrypops
```

Format

A tibble with 12470 rows and 5 variables:

country_name Name of the country

country_code_2 The 2-letter ISO 3166-1 country code

country_code_3 The 3-letter ISO 3166-1 country code

year The year for the population estimate

population The population estimate, midway through the year

Examples

Here is a glimpse at the data available in countrypops.

```
dplyr::glimpse(countrypops)
#> Rows: 12,470
#> Columns: 5
#> $ country_name <chr> "Aruba", "Aruba", "Aruba", "Aruba", "Aruba", "Aruba", "~
#> $ country_code_2 <chr> "AW", "AW", "AW", "AW", "AW", "AW", "AW", "AW", "AW", "~
#> $ country_code_3 <chr> "ABW", "ABW", "ABW", "ABW", "ABW", "ABW", "ABW", "ABW", "~
#> $ year <int> 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1~
#> $ population <int> 54211, 55438, 56225, 56695, 57032, 57360, 57715, 58055, ~
```

Function ID

11-1

Source

<https://data.worldbank.org/indicator/SP.POP.TOTL>

See Also

Other datasets: [exibble](#), [gtcars](#), [pizzaplace](#), [sp500](#), [sza](#)

currency	<i>Supply a custom currency symbol to <code>fmt_currency()</code></i>
----------	---

Description

The `currency()` helper function makes it easy to specify a context-aware currency symbol to currency argument of `fmt_currency()`. Since `gt` can render tables to several output formats, `currency()` allows for different variations of the custom symbol based on the output context (which are `html`, `latex`, `rtf`, and `default`). The number of decimal places for the custom currency defaults to 2, however, a value set for the `decimals` argument of `fmt_currency()` will take precedence.

Usage

```
currency(..., .list = list2(...))
```

Arguments

<code>...</code>	One or more named arguments using output contexts as the names and currency symbol text as the values.
<code>.list</code>	Allows for the use of a list as an input alternative to <code>...</code>

Details

We can use any combination of `html`, `latex`, `rtf`, and `default` as named arguments for the currency text in each of the namesake contexts. The `default` value is used as a fallback when there doesn't exist a dedicated currency text value for a particular output context (e.g., when a table is rendered as HTML and we use `currency(latex = "LTC", default = "ltc")`, the currency symbol will be "ltc". For convenience, if we provide only a single string without a name, it will be taken as the default (i.e., `currency("ltc")` is equivalent to `currency(default = "ltc")`). However, if we were to specify currency strings for multiple output contexts, names are required each and every context.

Value

A list object of class `gt_currency`.

Examples

Use [exibble](#) to create a **gt** table. Format the currency column to have currency values in guilder (a defunct Dutch currency).

```
exibble %>%
  gt() %>%
  fmt_currency(
    columns = currency,
    currency = currency(
      html = "&fnof;",
      default = "f"
    ),
    decimals = 2
  )
```

Function ID

7-18

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

data_color

Set data cell colors using a palette or a color function

Description

It's possible to add color to data cells according to their values. The `data_color()` function colors all rows of any columns supplied. There are two ways to define how cells are colored: (1) through the use of a supplied color palette, and (2) through use of a color mapping function available from the **scales** package. The first method colorizes cell data according to whether values are character or numeric. The second method provides more control over how cells are colored since we provide an explicit color function and thus other requirements such as bin counts, cut points, or a numeric domain. Finally, we can choose whether to apply the cell-specific colors to either the cell background or the cell text.

Usage

```
data_color(
  data,
  columns,
  colors,
```



```

alpha = NULL,
apply_to = c("fill", "text"),
autocolor_text = TRUE
)

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns wherein changes to cell data colors should occur.
colors	Either a color mapping function from the <code>scales</code> package or a vector of colors to use for each distinct value or level in each of the provided columns. The color mapping functions are: <code>scales::col_quantile()</code> , <code>scales::col_bin()</code> , <code>scales::col_numeric()</code> , and <code>scales::col_factor()</code> . If providing a vector of colors as a palette, each color value provided must either be a color name (in the set of colors provided by <code>grDevices::colors()</code>) or a hexadecimal string in the form of "#RRGGBB" or "#RRGGBBAA".
alpha	An optional, fixed alpha transparency value that will be applied to all of the colors provided (regardless of whether a color palette was directly supplied or generated through a color mapping function).
apply_to	Which style element should the colors be applied to? Options include the cell background (the default, given as "fill") or the cell text ("text").
autocolor_text	An option to let <code>gt</code> modify the coloring of text within cells undergoing background coloring. This will in some cases yield more optimal text-to-background color contrast. By default, this is set to TRUE.

Details

The `col_*()` color mapping functions from the `scales` package can be used in the `colors` argument. These functions map data values (numeric or factor/character) to colors according to the provided palette.

- `scales::col_numeric()`: provides a simple linear mapping from continuous numeric data to an interpolated palette.
- `scales::col_bin()`: provides a mapping of continuous numeric data to value-based bins. This internally uses the `base::cut()` function.
- `scales::col_quantile()`: provides a mapping of continuous numeric data to quantiles. This internally uses the `stats::quantile()` function.
- `scales::col_factor()`: provides a mapping of factors to colors. If the palette is discrete and has a different number of colors than the number of factors, interpolation is used.

By default, `gt` will choose the ideal text color (for maximal contrast) when coloring the background of data cells. This option can be disabled by setting `autocolor_text` to FALSE.

Choosing the right color palette can often be difficult because it's both hard to discover suitable palettes and then obtain the vector of colors. To make this process easier we can elect to use the `paletteer` package, which makes a wide range of palettes from various R packages readily available. The `info_paletteer()` information table allows us to easily inspect all of the discrete color

palettes available in **paletteer**. We only then need to specify the package and palette when calling the `paletteer::paletteer_d()` function, and, we get the palette as a vector of hexadecimal colors.

Value

An object of class `gt_tbl`.

Examples

Use `countrypops` to create a **gt** table. Apply a color scale to the population column with `scales::col_numeric`, four supplied colors, and a domain.

```
countrypops %>%
  dplyr::filter(country_name == "Mongolia") %>%
  dplyr::select(-contains("code")) %>%
  tail(10) %>%
  gt() %>%
  data_color(
    columns = population,
    colors = scales::col_numeric(
      palette = c("red", "orange", "green", "blue"),
      domain = c(0.2E7, 0.4E7)
    )
  )
```

Use `pizzaplace` to create a **gt** table. Apply colors from the `"ggsci::red_material"` palette (it's in the **ggsci** R package but more easily gotten from the **paletteer** package, info at `info_paletteer()`) to to sold and income columns. Setting the domain of `scales::col_numeric()` to `NULL` will use the bounds of the available data as the domain.

```
pizzaplace %>%
  dplyr::filter(type %in% c("chicken", "supreme")) %>%
  dplyr::group_by(type, size) %>%
  dplyr::summarize(
    sold = dplyr::n(),
    income = sum(price),
    .groups = "drop"
  ) %>%
  gt(
    rowname_col = "size",
    groupname_col = "type"
  ) %>%
  data_color(
    columns = c(sold, income),
    colors = scales::col_numeric(
      palette = paletteer::paletteer_d(
        palette = "ggsci::red_material"
      )
    ) %>%
  )
```

```

        as.character(),
        domain = NULL
    )
)

```

Function ID

3-21

See Also

Other data formatting functions: [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 default_fonts

*A vector of default fonts for use with **gt** tables*

Description

The vector of fonts given by `default_fonts()` should be used with a **gt** table that is rendered to HTML. We can specify additional fonts to use but this default set should be placed after that to act as fallbacks. This is useful when specifying font values in the `cell_text()` function (itself used in the `tab_style()` function). If using `opt_table_font()` (which also has a font argument) we probably don't need to specify this vector of fonts since it is handled by its add option (which is TRUE by default).

Usage

```
default_fonts()
```

Value

A character vector of font names.

Examples

Use [exibble](#) to create a **gt** table. Attempting to modify the fonts used for the time column is much safer if `default_fonts()` is appended to the end of the font listing in the `cell_text()` call (the "Comic Sansa" and "Menloa" fonts don't exist, but, we'll get the first available font from the `default_fonts()` set).

```

exibble %>%
  dplyr::select(char, time) %>%
  gt() %>%
  tab_style(
    style = cell_text(

```

```

    font = c(
      "Comic Sansa", "Menlo",
      default_fonts()
    )
  ),
  locations = cells_body(columns = time)
)

```

Function ID

7-26

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

escape_latex

Perform LaTeX escaping

Description

Text may contain several characters with special meanings in LaTeX. This function will transform a character vector so that it is safe to use within LaTeX tables.

Usage

```
escape_latex(text)
```

Arguments

`text` A character vector containing the text that is to be LaTeX-escaped.

Value

A character vector.

Function ID

7-24

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

 exibble

A toy example tibble for testing with gt: exibble

Description

This tibble contains data of a few different classes, which makes it well-suited for quick experimentation with the functions in this package. It contains only eight rows with numeric, character, and factor columns. The last 4 rows contain NA values in the majority of this tibble's columns (1 missing value per column). The date, time, and datetime columns are character-based dates/times in the familiar ISO 8601 format. The row and group columns provide for unique rownames and two groups (grp_a and grp_b) for experimenting with the [gt\(\)](#) function's rowname_col and groupname_col arguments.

Usage

```
exibble
```

Format

A tibble with 8 rows and 9 variables:

num a numeric column ordered with increasingly larger values

char a character column composed of names of fruits from a to h

fctr a factor column with numbers from 1 to 8, written out

date, time, datetime character columns with dates, times, and datetimes

currency a numeric column that is useful for testing currency-based formatting

row a character column in the format row_X which can be useful for testing with row captions in a table stub

group a character column with four grp_a values and four grp_b values which can be useful for testing tables that contain row groups

Examples

Here is the exibble.

```

exibble
#> # A tibble: 8 x 9
#>   num char      fctr date      time datetime  currency row  group
#>   <dbl> <chr>    <fct> <chr>    <chr> <chr>      <dbl> <chr> <chr>
#> 1   0.111 apricot  one   2015-01-15 13:35 2018-01-01~ 50.0 row_1 grp_a
#> 2   2.22  banana  two   2015-02-15 14:40 2018-02-02~ 18.0 row_2 grp_a
#> 3  33.3   coconut three 2015-03-15 15:45 2018-03-03~ 1.39 row_3 grp_a
#> 4  444.   durian  four 2015-04-15 16:50 2018-04-04~ 65100 row_4 grp_a
#> 5  5550   <NA>    five 2015-05-15 17:55 2018-05-05~ 1326. row_5 grp_b
#> 6    NA   fig    six 2015-06-15 <NA> 2018-06-06~ 13.3 row_6 grp_b
#> 7 777000 grapefruit seven <NA> 19:10 2018-07-07~ NA row_7 grp_b
#> 8 8880000 honeydew eight 2015-08-15 20:20 <NA> 0.44 row_8 grp_b

```

Function ID

11-6

See Also

Other datasets: [countrypops](#), [gtcars](#), [pizzaplace](#), [sp500](#), [sza](#)

extract_summary

*Extract a summary list from a **gt** object*

Description

Get a list of summary row data frames from a `gt_tbl` object where summary rows were added via the `summary_rows()` function. The output data frames contain the `group_id` and `rowname` columns, whereby `rowname` contains descriptive stub labels for the summary rows.

Usage

```
extract_summary(data)
```

Arguments

`data` A table object that is created using the `gt()` function.

Value

A list of data frames containing summary data.

Examples

Use `sp500` to create a `gt` table with row groups. Create summary rows labeled as min, max, and avg for every row group with `summary_rows()`. Then, extract the summary rows as a list object.

```
summary_extracted <-
  sp500 %>%
  dplyr::filter(date >= "2015-01-05" & date <="2015-01-30") %>%
  dplyr::arrange(date) %>%
  dplyr::mutate(week = paste0("W", strftime(date, format = "%V"))) %>%
  dplyr::select(-adj_close, -volume) %>%
  gt(
    rowname_col = "date",
    groupname_col = "week"
  ) %>%
  summary_rows(
    groups = TRUE,
    columns = c(open, high, low, close),
    fns = list(
      min = ~min(.),
      max = ~max(.),
      avg = ~mean(.)
    ),
    formatter = fmt_number,
    use_seps = FALSE
  ) %>%
  extract_summary()
```

```
summary_extracted
#> $summary_df_data_list
#> $summary_df_data_list$W02
#> # A tibble: 3 x 8
#>   group_id rowname  date  open  high  low close  week
#>   <chr>    <chr>  <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
#> 1 W02      min      NA 2006. 2030. 1992. 2003.  NA
#> 2 W02      max      NA 2063. 2064. 2038. 2062.  NA
#> 3 W02      avg      NA 2035. 2049. 2017. 2031.  NA
#>
#> $summary_df_data_list$W03
#> # A tibble: 3 x 8
#>   group_id rowname  date  open  high  low close  week
#>   <chr>    <chr>  <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
#> 1 W03      min      NA 1992. 2018. 1988. 1993.  NA
#> 2 W03      max      NA 2046. 2057. 2023. 2028.  NA
#> 3 W03      avg      NA 2020. 2033. 2000. 2015.  NA
#>
#> $summary_df_data_list$W04
#> # A tibble: 3 x 8
#>   group_id rowname  date  open  high  low close  week
```

```

#>   <chr>   <chr>   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
#> 1 W04     min       NA 2020. 2029. 2004. 2023.   NA
#> 2 W04     max       NA 2063. 2065. 2051. 2063.   NA
#> 3 W04     avg       NA 2035. 2049. 2023. 2042.   NA
#>
#> $summary_df_data_list$W05
#> # A tibble: 3 x 8
#>   group_id rowname  date  open  high  low close  week
#>   <chr>    <chr>  <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
#> 1 W05     min       NA 2002. 2023. 1989. 1995.   NA
#> 2 W05     max       NA 2050. 2058. 2041. 2057.   NA
#> 3 W05     avg       NA 2030. 2039. 2009. 2021.   NA

```

Use the summary list to make a new **gt** table. The key thing is to use `dplyr::bind_rows()` and then pass the tibble to `gt()`.

```

summary_extracted %>%
  unlist(recursive = FALSE) %>%
  dplyr::bind_rows() %>%
  gt(groupname_col = "group_id")

```

Function ID

13-6

See Also

Other table export functions: [as_latex\(\)](#), [as_raw_html\(\)](#), [as_rtf\(\)](#), [as_word\(\)](#), [gtsave\(\)](#)

fmt

Set a column format with a formatter function

Description

The `fmt()` function provides a way to execute custom formatting functionality with raw data values in a way that can consider all output contexts.

Along with the `columns` and `rows` arguments that provide some precision in targeting data cells, the `fns` argument allows you to define one or more functions for manipulating the raw data.

If providing a single function to `fns`, the recommended format is in the form: `fns = function(x) ...`. This single function will format the targeted data cells the same way regardless of the output format (e.g., HTML, LaTeX, RTF).

If you require formatting of `x` that depends on the output format, a list of functions can be provided for the `html`, `latex`, `rtf`, and `default` contexts. This can be in the form of `fns = list(html = function(x) ..., latex = function(x) ..., default = function(x) ...)`. In this multiple-function case, we recommended including the `default` function as a fallback if all contexts aren't provided.

Usage

```
fmt(data, columns = everything(), rows = everything(), fns, prepend = FALSE)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
fns	Either a single formatting function or a named list of functions.
prepend	Should the formatting function(s) be brought to the beginning of the formatting queue (TRUE) or placed at the end (FALSE). By default, this is FALSE and this leads to 'last-one-wins' semantics.

Details

As with all of the `fmt_*()` functions, targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Format the numeric values in the `num` column with a function supplied to the `fns` argument.

```
exibble %>%
  dplyr::select(-row, -group) %>%
  gt() %>%
  fmt(
    columns = num,
    fns = function(x) {
      paste0("'", x * 1000, "'")
    }
  )
```

Function ID

3-16

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 fmt_bytes

Format values as bytes

Description

With numeric values in a **gt** table, we can transform those to values of bytes with human readable units. The `fmt_bytes()` function allows for the formatting of byte sizes to either of two common representations: (1) with decimal units (powers of 1000, examples being "kB" and "MB"), and (2) with binary units (powers of 1024, examples being "KiB" and "MiB").

It is assumed the input numeric values represent the number of bytes and automatic truncation of values will occur. The numeric values will be scaled to be in the range of 1 to <1000 and then decorated with the correct unit symbol according to the standard chosen. For more control over the formatting of byte sizes, we can use the following options:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
fmt_bytes(
  data,
  columns,
  rows = everything(),
  standard = c("decimal", "binary"),
  decimals = 1,
  n_sigfig = NULL,
  drop_trailing_zeros = TRUE,
  drop_trailing_dec_mark = TRUE,
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",",
```

```

    dec_mark = ".",
    force_sign = FALSE,
    incl_space = TRUE,
    locale = NULL
  )

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
standard	The way to express large byte sizes.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 1.
n_sigfig	A option to format numbers to <i>n</i> significant figures. By default, this is NULL and thus number values will be formatted according to the number of decimal places set via <code>decimals</code> . If opting to format according to the rules of significant figures, <code>n_sigfig</code> must be a number greater than or equal to 1. Any values passed to the <code>decimals</code> and <code>drop_trailing_zeros</code> arguments will be ignored.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).

force_sign	Should the positive sign be shown for positive numbers (effectively showing a sign for all numbers except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.
incl_space	An option for whether to include a space between the value and the units. The default of TRUE uses a space character for separation.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Format the num column to have byte sizes in the decimal standard.

```
exibble %>%
  dplyr::select(num) %>%
  gt() %>%
  fmt_bytes(columns = num)
```

Create a similar table with the `fmt_bytes()` function, this time showing byte sizes as binary values.

```
exibble %>%
  dplyr::select(num) %>%
  gt() %>%
  fmt_bytes(
    columns = num,
    standard = "binary"
  )
```

Function ID

3-9

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

fmt_currency

Format values as currencies

Description

With numeric values in a **gt** table, we can perform currency-based formatting. This function supports both automatic formatting with a three-letter or numeric currency code. We can also specify a custom currency that is formatted according to the output context with the [currency\(\)](#) helper function. Numeric formatting facilitated through the use of a locale ID. We have fine control over the conversion from numeric values to currency values, where we could take advantage of the following options:

- the currency: providing a currency code or common currency name will procure the correct currency symbol and number of currency subunits; we could also use the [currency\(\)](#) helper function to specify a custom currency
- currency symbol placement: the currency symbol can be placed before or after the values
- decimals/subunits: choice of the number of decimal places, and a choice of the decimal symbol, and an option on whether to include or exclude the currency subunits (decimal portion)
- negative values: choice of a negative sign or parentheses for values less than zero
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted currency values
- locale-based formatting: providing a locale ID will result in currency formatting specific to the chosen locale

We can use the [info_currencies\(\)](#) function for a useful reference on all of the possible inputs to the currency argument.

Usage

```
fmt_currency(  
  data,  
  columns,  
  rows = everything(),  
  currency = "USD",  
  use_subunits = TRUE,
```

```

decimals = NULL,
drop_trailing_dec_mark = TRUE,
use_seps = TRUE,
accounting = FALSE,
scale_by = 1,
suffixing = FALSE,
pattern = "{x}",
sep_mark = ",",
dec_mark = ".",
force_sign = FALSE,
placement = "left",
incl_space = FALSE,
system = c("intl", "ind"),
locale = NULL
)

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
currency	<p>The currency to use for the numeric value. This input can be supplied as a 3-letter currency code (e.g., "USD" for U.S. Dollars, "EUR" for the Euro currency). Use <code>info_currencies()</code> to get an information table with all of the valid currency codes and examples of each. Alternatively, we can provide a common currency name (e.g., "dollar", "pound", "yen", etc.) to simplify the process. Use <code>info_currencies()</code> with the <code>type == "symbol"</code> option to view an information table with all of the supported currency symbol names along with examples.</p> <p>We can also use the <code>currency()</code> helper function to specify a custom currency, where the string could vary across output contexts. For example, using <code>currency(html = "&fnof;", default = "f")</code> would give us a suitable glyph for the Dutch guilder in an HTML output table, and it would simply be the letter "f" in all other output contexts). Please note that decimals will default to 2 when using the <code>currency()</code> helper function.</p> <p>If nothing is provided to currency then "USD" (U.S. dollars) will be used.</p>
use_subunits	An option for whether the subunits portion of a currency value should be displayed. By default, this is TRUE.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.

drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using accounting = TRUE will put negative values in parentheses.
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the suffixing options (i.e., where suffixing is not set to FALSE).
suffixing	<p>An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 1.92M). This option can accept a logical value, where FALSE (the default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., c("k", "Ml", "Bn", "Tr")).</p> <p>Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g, c(NA, "M", "B", "T") won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g., with c("K", "M", NA, "T"), all numbers in the range of millions and billions will be in terms of millions).</p> <p>Any use of suffixing (where it is not set expressly as FALSE) means that any value provided to scale_by will be ignored.</p> <p>If using system = "ind" then the default suffix set provided by suffixing = TRUE will be c(NA, "L", "Cr"). This doesn't apply suffixes to the thousands range, but does express values in lakhs and crores.</p>
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = ", " with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "." with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with accounting = TRUE.
placement	The placement of the currency symbol. This can be either be left (the default) or right.
incl_space	An option for whether to include a space between the value and the currency symbol. The default is to not introduce a space character.

system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., sep_mark) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Format the currency column to have currency values in euros ("EUR").

```
exibble %>%
  gt() %>%
  fmt_currency(
    columns = currency,
    currency = "EUR"
  )
```

Use `exibble` to create a `gt` table. Keep only the num and currency, columns, then, format those columns using the "CNY" and "GBP" currencies.

```
exibble %>%
  dplyr::select(num, currency) %>%
  gt() %>%
  fmt_currency(
    columns = num,
    currency = "CNY"
  ) %>%
  fmt_currency(
    columns = currency,
    currency = "GBP"
  )
```


Function ID

3-8

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 fmt_date

Format values as dates

Description

Format input values to time values using one of fourteen presets. Input can be in the form of POSIXt (i.e., date-times), the Date type, or character (must be in the ISO 8601 form of YYYY-MM-DD HH:MM:SS or YYYY-MM-DD).

Once the appropriate data cells are targeted with columns (and, optionally, rows), we can simply apply a preset date style to format the dates. The following date styles are available for use (all using the input date of 2000-02-29 in the example output dates):

1. "iso": 2000-02-29
2. "wday_month_day_year": Tuesday, February 29, 2000
3. "wd_m_day_year": Tue, Feb 29, 2000
4. "wday_day_month_year": Tuesday 29 February 2000
5. "month_day_year": February 29, 2000
6. "m_day_year": Feb 29, 2000
7. "day_m_year": 29 Feb 2000
8. "day_month_year": 29 February 2000
9. "day_month": 29 February
10. "year": 2000
11. "month": February
12. "day": 29
13. "year.mn.day": 2000/02/29
14. "y.mn.day": 00/02/29

We can use the [info_date_style\(\)](#) function for a useful reference on all of the possible inputs to date_style.

Usage

```
fmt_date(data, columns, rows = everything(), date_style = 2, pattern = "{x}")
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
date_style	The date style to use. Supply a number (from 1 to 14) that corresponds to the preferred date style, or, provide a named date style ("wday_month_day_year", "m_day_year", "year.mn.day", etc.). Use <code>info_date_style()</code> to see the different numbered and named date presets.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Keep only the date and time columns. Format the date column to have dates formatted as `month_day_year` (date style 5).

```
exibble %>%
  dplyr::select(date, time) %>%
  gt() %>%
  fmt_date(
    columns = date,
    date_style = 5
  )
```

Use `exibble` to create a `gt` table. Keep only the date and time columns. Format the date column to have mixed date formats (dates after April will be different than the others because of the expressions used in the rows argument).

```

exibble %>%
  dplyr::select(date, time) %>%
  gt() %>%
  fmt_date(
    columns = date,
    rows = as.Date(date) > as.Date("2015-04-01"),
    date_style = "m_day_year"
  ) %>%
  fmt_date(
    columns = date,
    rows = as.Date(date) <= as.Date("2015-04-01"),
    date_style = "day_m_year"
  )

```

Function ID

3-10

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 fmt_datetime

Format values as date-times

Description

Format input values to date-time values using one of fourteen presets for the date component and one of five presets for the time component. Input can be in the form of POSIXct (i.e., date-times), the Date type, or character (must be in the ISO 8601 form of YYYY-MM-DD HH:MM:SS or YYYY-MM-DD).

Once the appropriate data cells are targeted with columns (and, optionally, rows), we can simply apply preset date and time styles to format the date-time values. The following date styles are available for formatting of the date portion (all using the input date of 2000-02-29 in the example output dates):

1. "iso": 2000-02-29
2. "wday_month_day_year": Tuesday, February 29, 2000
3. "wd_m_day_year": Tue, Feb 29, 2000
4. "wday_day_month_year": Tuesday 29 February 2000
5. "month_day_year": February 29, 2000
6. "m_day_year": Feb 29, 2000
7. "day_m_year": 29 Feb 2000

8. "day_month_year": 29 February 2000
9. "day_month": 29 February
10. "year": 2000
11. "month": February
12. "day": 29
13. "year.mn.day": 2000/02/29
14. "y.mn.day": 00/02/29

The following time styles are available for formatting of the time portion (all using the input time of 14:35:00 in the example output times):

1. "hms": 14:35:00
2. "hm": 14:35
3. "hms_p": 2:35:00 PM
4. "hm_p": 2:35 PM
5. "h_p": 2 PM

We can use the [info_date_style\(\)](#) and [info_time_style\(\)](#) functions as useful references for all of the possible inputs to `date_style` and `time_style`.

Usage

```
fmt_datetime(
  data,
  columns,
  rows = everything(),
  date_style = 2,
  time_style = 2,
  sep = " ",
  format = NULL,
  tz = NULL,
  pattern = "{x}"
)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in c() , a vector of column indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() .
<code>rows</code>	Optional rows to format. Providing everything() (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within c() , a vector of row indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).

date_style	The date style to use. Supply a number (from 1 to 14) that corresponds to the preferred date style, or, provide a named date style ("wday_month_day_year", "m_day_year", "year.mn.day", etc.). Use <code>info_date_style()</code> to see the different numbered and named date presets.
time_style	The time style to use. Supply a number (from 1 to 5) that corresponds to the preferred time style, or, provide a named time style ("hms", "hms_p", "h_p", etc.). Use <code>info_time_style()</code> to see the different numbered and named time presets.
sep	The separator string to use between the date and time components. By default, this is a single space character (" "). Only used when not specifying a format code.
format	An optional format code used for generating custom dates/times. If used then the arguments governing preset styles (date_style and time_style) will be ignored in favor of formatting via the format string.
tz	The time zone for printing dates/times (i.e., the output). The default of NULL will preserve the time zone of the input data in the output. If providing a time zone, it must be one that is recognized by the user's operating system (a vector of all valid tz values can be produced with <code>OlsonNames()</code>).
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Date and Time Formats

Using format to create custom time formats isn't so hard once we know about all of the different format codes. The formats are all indicated with a leading % and literal characters are any of those without the leading %. We'll use the date and time "2015-06-08 23:05:37.48" for all of the examples here.

First off, let's look at a few format code combinations that work well together as format codes. This will give us an intuition on how these generally work.

- "%m/%d/%Y" -> "06/08/2015"
- "%A, %B %e, %Y" -> "Monday, June 8, 2015"
- "%b %e %a" -> "Jun 8 Mon"
- "%H:%M" -> "23:05"
- "%I:%M %p" -> "11:05 pm"
- "%A, %B %e, %Y at %I:%M %p" -> "Monday, June 8, 2015 at 11:05 pm"

Here are the individual format codes for date components:

- "%a" -> "Mon" (abbreviated day of week name)
- "%A" -> "Monday" (full day of week name)
- "%w" -> "1" (day of week number in 0..6; Sunday is 0)
- "%u" -> "1" (day of week number in 1..7; Monday is 1, Sunday 7)
- "%y" -> "15" (abbreviated year, using the final two digits)
- "%Y" -> "2015" (full year)
- "%b" -> "Jun" (abbreviated month name)
- "%B" -> "June" (full month name)
- "%m" -> "06" (month number)
- "%d" -> "08" (day number, zero-padded)
- "%e" -> "8" (day number without zero padding)

Here are the individual format codes for time components:

- "%H" -> "23" (24h hour)
- "%I" -> "11" (12h hour)
- "%M" -> "05" (minute)
- "%S" -> "37" (second)
- "%OS3" -> "37.480" (seconds with decimals; 3 decimal places here)
- "%p" -> "pm" (AM or PM indicator, may not appear in certain locales)

Here are some extra formats that you may find useful:

- "%j" -> "159" (day of the year, always zero-padded)
- "%W" -> "23" (week number for the year, always zero-padded)
- "%V" -> "24" (week number for the year, following ISO 8601 standard)
- "%C" -> "20" (the century number)
- "%z" -> "+0000" (signed time zone offset, here using UTC)
- "%F" -> "2015-06-08" (the date in the ISO 8601 date format)
- "%%" -> "%" (the literal "%" character, in case you need it)

Examples

Use `exibble` to create a `gt` table. Keep only the `datetime` column. Format the column to have dates formatted as `month_day_year` and times to be `hms_p`.

```
exibble %>%
  dplyr::select(datetime) %>%
  gt() %>%
  fmt_datetime(
    columns = datetime,
    date_style = 5,
    time_style = 3
  )
```

Function ID

3-12

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 fmt_duration

Format numeric or duration values as styled time duration strings

Description

Format input values to time duration values whether those input values are numbers or of the difftime class. We can specify which time units any numeric input values have (as weeks, days, hours, minutes, or seconds) and the output can be customized with a duration style (corresponding to narrow, wide, colon-separated, and ISO forms) and a choice of output units ranging from weeks to seconds.

Usage

```
fmt_duration(
  data,
  columns,
  rows = everything(),
  input_units = NULL,
  output_units = NULL,
  duration_style = c("narrow", "wide", "colon-sep", "iso"),
  trim_zero_units = TRUE,
  max_output_units = NULL,
  pattern = "{x}",
  use_seps = TRUE,
  sep_mark = ",",
  force_sign = FALSE,
  system = c("intl", "ind"),
  locale = NULL
)
```

Arguments

data A table object that is created using the [gt\(\)](#) function.

columns The columns to format. Can either be a series of column names provided in [c\(\)](#), a vector of column indices, or a helper function focused on selections. The select helper functions are: [starts_with\(\)](#), [ends_with\(\)](#), [contains\(\)](#), [matches\(\)](#), [one_of\(\)](#), [num_range\(\)](#), and [everything\(\)](#).

rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
input_units	If one or more selected columns contains numeric values, a keyword must be provided for <code>input_units</code> for <code>gt</code> to determine how those values are to be interpreted in terms of duration. The accepted units are: "seconds", "minutes", "hours", "days", and "weeks".
output_units	Controls the output time units. The default, NULL, means that <code>gt</code> will automatically choose time units based on the input duration value. To control which time units are to be considered for output (before trimming with <code>trim_zero_units</code>) we can specify a vector of one or more of the following keywords: "weeks", "days", "hours", "minutes", or "seconds".
duration_style	A choice of four formatting styles for the output duration values. With "narrow" (the default style), duration values will be formatted with single letter time-part units (e.g., 1.35 days will be styled as "1d 8h 24m"). With "wide", this example value will be expanded to "1 day 8 hours 24 minutes" after formatting. The "colon-sep" style will put days, hours, minutes, and seconds in the "[DD]/[HH]:[MM]:[SS]" format. The "iso" style will produce a value that conforms to the ISO 8601 rules for duration values (e.g., 1.35 days will become "P1DT8H24M").
trim_zero_units	Provides methods to remove output time units that have zero values. By default this is TRUE and duration values that might otherwise be formatted as "0w 1d 0h 4m 19s" with <code>trim_zero_units = FALSE</code> are instead displayed as "1d 4m 19s". Aside from using TRUE/FALSE we could provide a vector of keywords for more precise control. These keywords are: (1) "leading", to omit all leading zero-value time units (e.g., "0w 1d" -> "1d"), (2) "trailing", to omit all trailing zero-value time units (e.g., "3d 5h 0s" -> "3d 5h"), and "internal", which removes all internal zero-value time units (e.g., "5d 0h 33m" -> "5d 33m").
max_output_units	If <code>output_units</code> is NULL, where the output time units are unspecified and left to <code>gt</code> to handle, a numeric value provided for <code>max_output_units</code> will be taken as the maximum number of time units to display in all output time duration values. By default, this is NULL and all possible time units will be displayed. This option has no effect when <code>duration_style = "colon-sep"</code> (only <code>output_units</code> can be used to customize that type of duration output).
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ", "</code> with 1000 would result in a formatted value of 1,000).

force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative value will display a minus sign.
system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., sep_mark) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Output units for the colon-separated duration style

The colon-separated duration style (enabled when `duration_style = "colon-sep"`) is essentially a clock-based output format which uses the display logic of chronograph watch functionality. It will, by default, display duration values in the (D/)HH:MM:SS format. Any duration values greater than or equal to 24 hours will have the number of days prepended with an adjoining slash mark. While this output format is versatile, it can be changed somewhat with the `output_units` option. The following combinations of output units are permitted:

- `c("minutes", "seconds")` -> MM:SS
- `c("hours", "minutes")` -> HH:MM
- `c("hours", "minutes", "seconds")` -> HH:MM:SS
- `c("days", "hours", "minutes")` -> (D/)HH:MM

Any other specialized combinations will result in the default set being used, which is `c("days", "hours", "minutes", "seconds")`

Examples

Use part of the `sp500` table to create a `gt` table. Create a `difftime`-based column and format the duration values to be displayed as the number of days since March 30, 2020.

```

sp500 %>%
  dplyr::slice_head(n = 10) %>%
  dplyr::mutate(
    time_point = lubridate::ymd("2020-03-30"),
    time_passed = difftime(time_point, date)
  ) %>%
  dplyr::select(time_passed, open, close) %>%
  gt(rowname_col = "month") %>%
  fmt_duration(
    columns = time_passed,
    output_units = "days",
    duration_style = "wide"
  ) %>%
  fmt_currency(columns = c(open, close))

```

Function ID

3-13

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

fmt_engineering

Format values to engineering notation

Description

With numeric values in a **gt** table, we can perform formatting so that the targeted values are rendered in engineering notation.

With this function, there is fine control over the formatted values with the following options:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in formatting specific to the chosen locale

Usage

```

fmt_engineering(
  data,
  columns,
  rows = everything(),
  decimals = 2,
  drop_trailing_zeros = FALSE,
  scale_by = 1,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  locale = NULL
)

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.

locale An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in `sep_mark` and `dec_mark`. We can use the `info_locales()` function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in `gt()`'s own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). A number of helper functions exist to make targeting more effective. Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Format the num column in engineering notation.

```
exibble %>%
  gt() %>%
  fmt_engineering(columns = num)
```

Function ID

3-4

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_fraction

Format values as a mixed fractions

Description

With numeric values in a `gt` table, we can perform mixed-fraction-based formatting. There are several options for setting the accuracy of the fractions. Furthermore, there is an option for choosing a layout (i.e., typesetting style) for the mixed-fraction output.

The following options are available for controlling this type of formatting:

- accuracy: how to express the fractional part of the mixed fractions; there are three keyword options for this and an allowance for arbitrary denominator settings
- simplification: an option to simplify fractions whenever possible
- layout: We can choose to output values with diagonal or inline fractions
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol for the whole number portion
- pattern: option to use a text pattern for decoration of the formatted mixed fractions
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
fmt_fraction(
  data,
  columns,
  rows = everything(),
  accuracy = NULL,
  simplify = TRUE,
  layout = c("inline", "diagonal"),
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",",
  system = c("intl", "ind"),
  locale = NULL
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
accuracy	The type of fractions to generate. This can either be one of the keywords "low", "med", or "high" (to generate fractions with denominators of up to 1, 2, or 3 digits, respectively) or an integer value greater than zero to obtain fractions with a fixed denominator (2 yields halves, 3 is for thirds, 4 is quarters, etc.). For the latter option, using <code>simplify = TRUE</code> will simplify fractions where possible (e.g., 2/4 will be simplified as 1/2). By default, the "low" option is used.

simplify	If choosing to provide a numeric value for accuracy, the option to simplify the fraction (where possible) can be taken with TRUE (the default). With FALSE, denominators in fractions will be fixed to the value provided in accuracy.
layout	For HTML output, the "inline" layout is the default. This layout places the numerals of the fraction on the baseline and uses a standard slash character. The "diagonal" layout will generate fractions that are typeset with raised/lowered numerals and a virgule.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = ", " with 1000 would result in a formatted value of 1,000).
system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., sep_mark) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the info_locales() function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in gt() 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). A number of helper functions exist to make targeting more effective. Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use [pizzaplace](#) to create a `gt` table. Format the `f_sold` and `f_income` columns to display fractions.

```
pizzaplace %>%
  dplyr::group_by(type, size) %>%
  dplyr::summarize(
    sold = dplyr::n(),
    income = sum(price),
```

```

    .groups = "drop_last"
  ) %>%
  dplyr::group_by(type) %>%
  dplyr::mutate(
    f_sold = sold / sum(sold),
    f_income = income / sum(income),
  ) %>%
  dplyr::arrange(type, dplyr::desc(income)) %>%
  gt(rowname_col = "size") %>%
  tab_header(
    title = "Pizzas Sold in 2015",
    subtitle = "Fraction of Sell Count and Revenue by Size per Type"
  ) %>%
  fmt_integer(columns = sold) %>%
  fmt_currency(columns = income) %>%
  fmt_fraction(
    columns = starts_with("f_"),
    accuracy = 10,
    simplify = FALSE,
    layout = "diagonal"
  ) %>%
  sub_missing(missing_text = "") %>%
  tab_spanner(
    label = "Sold",
    columns = contains("sold")
  ) %>%
  tab_spanner(
    label = "Revenue",
    columns = contains("income")
  ) %>%
  text_transform(
    locations = cells_body(),
    fn = function(x) {
      dplyr::case_when(
        x == 0 ~ "<em>nil</em>",
        x != 0 ~ x
      )
    }
  ) %>%
  cols_label(
    sold = "Amount",
    income = "Amount",
    f_sold = md("_f_"),
    f_income = md("_f_")
  ) %>%
  cols_align(align = "center", columns = starts_with("f")) %>%
  tab_options(
    table.width = px(400),

```

```

    row_group.as_column = TRUE
  )

```

Function ID

3-7

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

 fmt_integer

Format values as integers

Description

With numeric values in a **gt** table, we can perform number-based formatting so that the targeted values are always rendered as integer values. We can have fine control over integer formatting with the following options:

- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```

fmt_integer(
  data,
  columns,
  rows = everything(),
  use_seps = TRUE,
  accounting = FALSE,
  scale_by = 1,
  suffixing = FALSE,
  pattern = "{x}",
  sep_mark = ",",
  force_sign = FALSE,
  system = c("intl", "ind"),
  locale = NULL
)

```


Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using <code>accounting = TRUE</code> will put negative values in parentheses.
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the suffixing options (i.e., where suffixing is not set to FALSE).
suffixing	<p>An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 2M). This option can accept a logical value, where FALSE (the default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., <code>c("k", "Ml", "Bn", "Tr")</code>).</p> <p>Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g. <code>c(NA, "M", "B", "T")</code> won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g., with <code>c("K", "M", NA, "T")</code>, all numbers in the range of millions and billions will be in terms of millions).</p> <p>Any use of suffixing (where it is not set expressly as FALSE) means that any value provided to <code>scale_by</code> will be ignored.</p>
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with <code>accounting = TRUE</code> .

system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., sep_mark) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. format the num column as integer values having no digit separators (with the `use_seps = FALSE` option).

```
exibble %>%
  dplyr::select(num, char) %>%
  gt() %>%
  fmt_integer(
    columns = num,
    use_seps = FALSE
  )
```

Function ID

3-2

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_markdown()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_markdown	<i>Format Markdown text</i>
--------------	-----------------------------

Description

Any Markdown-formatted text in the incoming cells will be transformed to the appropriate output type during render when using `fmt_markdown()`.

Usage

```
fmt_markdown(data, columns, rows = everything())
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
<code>rows</code>	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Create a few Markdown-based text snippets.

```
text_1a <- "
### This is Markdown.
```

Markdown's syntax is comprised entirely of punctuation characters, which punctuation characters have been carefully chosen so as to look like what they mean... assuming

```
you've ever used email.
"
```

```
text_1b <- "
Info on Markdown syntax can be found
[here](https://daringfireball.net/projects/markdown/).
"
```

```
text_2a <- "
The gt package has these datasets:
```

```
- `countrypops`
- `sza`
- `gtcars`
- `sp500`
- `pizzaplace`
- `exibble`
"
```

```
text_2b <- "
There's a quick reference [here](https://commonmark.org/help/).
"
```

Arrange the text snippets as a tibble using the `dplyr::tribble()` function. then, create a **gt** table and format all columns with `fmt_markdown()`.

```
dplyr::tribble(
  ~Markdown, ~md,
  text_1a,   text_2a,
  text_1b,   text_2b,
) %>%
  gt() %>%
  fmt_markdown(columns = everything()) %>%
  tab_options(table.width = px(400))
```

Function ID

3-14

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_number	<i>Format numeric values</i>
------------	------------------------------

Description

With numeric values in a **gt** table, we can perform number-based formatting so that the targeted values are rendered with a higher consideration for tabular presentation. Furthermore, there is finer control over numeric formatting with the following options:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
fmt_number(  
  data,  
  columns,  
  rows = everything(),  
  decimals = 2,  
  n_sigfig = NULL,  
  drop_trailing_zeros = FALSE,  
  drop_trailing_dec_mark = TRUE,  
  use_seps = TRUE,  
  accounting = FALSE,  
  scale_by = 1,  
  suffixing = FALSE,  
  pattern = "{x}",  
  sep_mark = ",",  
  dec_mark = ".",  
  force_sign = FALSE,  
  system = c("intl", "ind"),  
  locale = NULL  
)
```

Arguments

data A table object that is created using the `gt()` function.

columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
n_sigfig	A option to format numbers to <i>n</i> significant figures. By default, this is NULL and thus number values will be formatted according to the number of decimal places set via <code>decimals</code> . If opting to format according to the rules of significant figures, <code>n_sigfig</code> must be a number greater than or equal to 1. Any values passed to the <code>decimals</code> and <code>drop_trailing_zeros</code> arguments will be ignored.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using <code>accounting = TRUE</code> will put negative values in parentheses.
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the <code>suffixing</code> options (i.e., where <code>suffixing</code> is not set to FALSE).
suffixing	An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 1.92M). This option can accept a logical value, where FALSE (the default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., <code>c("k", "Ml", "Bn", "Tr")</code>). Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g. <code>c(NA, "M", "B", "T")</code> won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g.,

with `c("K", "M", NA, "T")`, all numbers in the range of millions and billions will be in terms of millions.

Any use of `suffixing` (where it is not set expressly as `FALSE`) means that any value provided to `scale_by` will be ignored.

If using `system = "ind"` then the default suffix set provided by `suffixing = TRUE` will be `c(NA, "L", "Cr")`. This doesn't apply suffixes to the thousands range, but does express values in lakhs and crores.

pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use <code>TRUE</code> for this option. The default is <code>FALSE</code> , where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with <code>accounting = TRUE</code> .
system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., <code>sep_mark</code>) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in <code>sep_mark</code> and <code>dec_mark</code> . We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Format the num column as numeric with three decimal places and with no use of digit separators.

```
exibble %>%
  gt() %>%
```

```
fmt_number(
  columns = num,
  decimals = 3,
  use_seps = FALSE
)
```

Use `countrypops` to create a `gt` table. Format all numeric columns to use large-number suffixing with the `suffixing = TRUE` option.

```
countrypops %>%
  dplyr::select(country_code_3, year, population) %>%
  dplyr::filter(country_code_3 %in% c("CHN", "IND", "USA", "PAK", "IDN")) %>%
  dplyr::filter(year > 1975 & year %% 5 == 0) %>%
  tidyr::spread(year, population) %>%
  dplyr::arrange(desc(`2015`)) %>%
  gt(rowname_col = "country_code_3") %>%
  fmt_number(
    columns = 2:9,
    decimals = 2,
    suffixing = TRUE
  )
```

Function ID

3-1

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_partsper

Format values as parts-per quantities

Description

With numeric values in a `gt` table we can format the values so that they are rendered as *per mille*, *ppm*, *ppb*, etc., quantities. The following list of keywords (with associated naming and scaling factors) is available to use within `fmt_partsper()`:

- "per-mille": Per mille, (1 part in 1,000)
- "per-myriad": Per myriad, (1 part in 10,000)
- "pcm": Per cent mille (1 part in 100,000)
- "ppm": Parts per million, (1 part in 1,000,000)

- "ppb": Parts per billion, (1 part in 1,000,000,000)
- "ppt": Parts per trillion, (1 part in 1,000,000,000,000)
- "ppq": Parts per quadrillion, (1 part in 1,000,000,000,000,000)

The function provides a lot of formatting control and we can use the following options:

- custom symbol/units: we can override the automatic symbol or units display with our own choice as the situation warrants
- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- value scaling toggle: choose to disable automatic value scaling in the situation that values are already scaled coming in (and just require the appropriate symbol or unit display)
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
fmt_partsper(
  data,
  columns,
  rows = everything(),
  to_units = c("per-mille", "per-myriad", "pcm", "ppm", "ppb", "ppt", "ppq"),
  symbol = "auto",
  decimals = 2,
  drop_trailing_zeros = FALSE,
  drop_trailing_dec_mark = TRUE,
  scale_values = TRUE,
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  incl_space = "auto",
  system = c("intl", "ind"),
  locale = NULL
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .

rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
to_units	A keyword that signifies the desired output quantity. This can be any from the following set: "per-mille", "per-myriad", "pcm", "ppm", "ppb", "ppt", or "ppq".
symbol	The symbol/units to use for the quantity. By default, this is set to "auto" and <code>gt</code> will choose the appropriate symbol based on the <code>to_units</code> keyword and the output context. However, this can be changed by supplying a string (e.g. using <code>symbol = "ppbV"</code> when <code>to_units = "ppb"</code>).
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
scale_values	Should the values be scaled through multiplication according to the keyword set in <code>to_units</code> ? By default this is TRUE since the expectation is that normally values are proportions. Setting to FALSE signifies that the values are already scaled and require only the appropriate symbol/units when formatted.
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with <code>accounting = TRUE</code> .
incl_space	An option for whether to include a space between the value and the symbol/units. The default is "auto" which provides spacing dependent on the mark itself. This can be directly controlled by using either TRUE or FALSE.
system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., <code>sep_mark</code>) are separated

by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.

locale An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in `sep_mark` and `dec_mark`. We can use the `info_locales()` function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in `gt()`'s own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Create a tibble of small numeric values and generate a `gt` table. Format the a column to appear in scientific notation with `fmt_scientific()` and format the b column as *per mille* values with `fmt_partsper()`.

```
dplyr::tibble(x = 0:-5, a = 10^(0:-5), b = a) %>%
  gt(rowname_col = "x") %>%
  fmt_scientific(a, decimals = 0) %>%
  fmt_partsper(
    columns = b,
    to_units = "per-mille"
  )
```

Function ID

3-6

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_number()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_passthrough	<i>Format by simply passing data through</i>
-----------------	--

Description

Format by passing data through no other transformation other than: (1) coercing to character (as all the `fmt_*`(`)` functions do), and (2) applying text via the `pattern` argument (the default is to apply nothing). All of this is useful when don't want to modify the input data other than to decorate it within a pattern. Also, this function is useful when used as the `formatter` function in the `summary_rows()` function, where the output may be text or useful as is.

Usage

```
fmt_passthrough(
  data,
  columns,
  rows = everything(),
  escape = TRUE,
  pattern = "{x}"
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
<code>rows</code>	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
<code>escape</code>	An option to escape text according to the final output format of the table. For example, if a LaTeX table is to be generated then LaTeX escaping would be performed during rendering. By default this is set to <code>TRUE</code> and setting to <code>FALSE</code> is useful in the case where LaTeX-formatted text should be passed through to the output LaTeX table unchanged.
<code>pattern</code>	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.

Details

Targeting of values is done through `columns` and additionally by `rows` (if nothing is provided for `rows` then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the `rows` argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Keep only the `char` column. Pass the data in that column through but apply a simple pattern that adds an "s" to the non-NA values.

```
exibble %>%
  dplyr::select(char) %>%
  gt() %>%
  fmt_passthrough(
    columns = char,
    rows = !is.na(char),
    pattern = "{x}s"
  )
```

Function ID

3-15

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

fmt_percent

Format values as a percentage

Description

With numeric values in a `gt` table, we can perform percentage-based formatting. It is assumed the input numeric values are proportional values and, in this case, the values will be automatically multiplied by 100 before decorating with a percent sign (the other case is accommodated though setting the `scale_values` to `FALSE`). For more control over percentage formatting, we can use the following options:

- percent sign placement: the percent sign can be placed after or before the values and a space can be inserted between the symbol and the value.
- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol

- value scaling toggle: choose to disable automatic value scaling in the situation that values are already scaled coming in (and just require the percent symbol)
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
fmt_percent(
  data,
  columns,
  rows = everything(),
  decimals = 2,
  drop_trailing_zeros = FALSE,
  drop_trailing_dec_mark = TRUE,
  scale_values = TRUE,
  use_seps = TRUE,
  accounting = FALSE,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  incl_space = FALSE,
  placement = "right",
  system = c("intl", "ind"),
  locale = NULL
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).

drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
scale_values	Should the values be scaled through multiplication by 100? By default this is TRUE since the expectation is that normally values are proportions. Setting to FALSE signifies that the values are already scaled and require only the percent sign when formatted.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using accounting = TRUE will put negative values in parentheses.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = ", " with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "." with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with accounting = TRUE.
incl_space	An option for whether to include a space between the value and the percent sign. The default is to not introduce a space character.
placement	The placement of the percent sign. This can be either be right (the default) or left.
system	The numbering system to use. By default, this is the international numbering system ("intl") whereby grouping separators (i.e., sep_mark) are separated by three digits. The alternative system, the Indian numbering system ("ind") uses grouping separators that correspond to thousand, lakh, crore, and higher quantities.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in <code>gt()</code> 's own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `pizzaplace` to create a `gt` table. Format the `frac_of_quota` column to display values as percentages.

```
pizzaplace %>%
  dplyr::mutate(month = as.numeric(substr(date, 6, 7))) %>%
  dplyr::group_by(month) %>%
  dplyr::summarize(pizzas_sold = dplyr::n()) %>%
  dplyr::ungroup() %>%
  dplyr::mutate(frac_of_quota = pizzas_sold / 4000) %>%
  gt(rowname_col = "month") %>%
  fmt_percent(
    columns = frac_of_quota,
    decimals = 1
  )
```

Function ID

3-5

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

fmt_scientific

Format values to scientific notation

Description

With numeric values in a `gt` table, we can perform formatting so that the targeted values are rendered in scientific notation. Furthermore, there is fine control with the following options:

- `decimals`: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- `scaling`: we can choose to scale targeted values by a multiplier value
- `pattern`: option to use a text pattern for decoration of the formatted values
- `locale-based formatting`: providing a locale ID will result in formatting specific to the chosen locale

Usage

```

fmt_scientific(
  data,
  columns,
  rows = everything(),
  decimals = 2,
  drop_trailing_zeros = FALSE,
  scale_by = 1,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  locale = NULL
)

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
columns	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.

locale An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the [info_locales\(\)](#) function as a useful reference for all of the locales that are supported. Any locale value provided here will override any global locale setting performed in [gt\(\)](#)'s own locale argument.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use [exibble](#) to create a `gt` table. Format the num column as partially numeric and partially in scientific notation (using the `num > 500` and `num <= 500` expressions in the respective rows arguments).

```
exibble %>%
  gt() %>%
  fmt_number(
    columns = num,
    rows = num > 500,
    decimals = 1,
    scale_by = 1/1000,
    pattern = "{x}k"
  ) %>%
  fmt_scientific(
    columns = num,
    rows = num <= 500,
    decimals = 1
  )
```

Function ID

3-3

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

fmt_time	<i>Format values as times</i>
----------	-------------------------------

Description

Format input values to time values using one of five presets. Input can be in the form of POSIXt (i.e., date-times), character (must be in the ISO 8601 forms of HH:MM:SS or YYYY-MM-DD HH:MM:SS), or Date (which always results in the formatting of 00:00:00).

Once the appropriate data cells are targeted with columns (and, optionally, rows), we can simply apply a preset time style to format the times. The following time styles are available for use (all using the input time of 14:35:00 in the example output times):

1. "hms": 14:35:00
2. "hm": 14:35
3. "hms_p": 2:35:00 PM
4. "hm_p": 2:35 PM
5. "h_p": 2 PM

We can use the [info_time_style\(\)](#) function for a useful reference on all of the possible inputs to time_style.

Usage

```
fmt_time(data, columns, rows = everything(), time_style = 2, pattern = "{x}")
```

Arguments

data	A table object that is created using the gt() function.
columns	The columns to format. Can either be a series of column names provided in c() , a vector of column indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() .
rows	Optional rows to format. Providing everything() (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within c() , a vector of row indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
time_style	The time style to use. Supply a number (from 1 to 5) that corresponds to the preferred time style, or, provide a named time style ("hms", "hms_p", "h_p", etc.). Use info_time_style() to see the different numbered and named time presets.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the *Arguments* section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Keep only the date and time columns. Format the time column to have times formatted as `hms_p` (time style 3).

```
exibble %>%
  dplyr::select(date, time) %>%
  gt() %>%
  fmt_time(
    columns = time,
    time_style = 3
  )
```

Use `exibble` to create a `gt` table. Keep only the date and time columns. Format the time column to have mixed time formats (times after 16:00 will be different than the others because of the expressions used in the rows argument).

```
exibble %>%
  dplyr::select(date, time) %>%
  gt() %>%
  fmt_time(
    columns = time,
    rows = time > "16:00",
    time_style = 3
  ) %>%
  fmt_time(
    columns = time,
    rows = time <= "16:00",
    time_style = 4
  )
```

Function ID

3-11

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt()`, `sub_large_vals()`, `sub_missing()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

`ggplot_image`*Helper function for adding a ggplot*

Description

We can add a **ggplot2** plot inside of a table with the help of the `ggplot_image()` function. The function provides a convenient way to generate an HTML fragment with a ggplot object. Because this function is currently HTML-based, it is only useful for HTML table output. To use this function inside of data cells, it is recommended that the `text_transform()` function is used. With that function, we can specify which data cells to target and then include a call to `ggplot_image()` within the required user-defined function (for the `fn` argument). If we want to include a plot in other places (e.g., in the header, within footnote text, etc.) we need to use `ggplot_image()` within the `html()` helper function.

Usage

```
ggplot_image(plot_object, height = 100, aspect_ratio = 1)
```

Arguments

<code>plot_object</code>	A ggplot plot object.
<code>height</code>	The absolute height (px) of the image in the table cell.
<code>aspect_ratio</code>	The plot's final aspect ratio. Where the height of the plot is fixed using the <code>height</code> argument, the <code>aspect_ratio</code> will either compress (<code>aspect_ratio < 1.0</code>) or expand (<code>aspect_ratio > 1.0</code>) the plot horizontally. The default value of <code>1.0</code> will neither compress nor expand the plot.

Details

By itself, the function creates an HTML image tag with an image URI embedded within (a 100 dpi PNG). We can easily experiment with any ggplot2 plot object, and using it within `ggplot_image(plot_object = <plot object>)` evaluates to:

```
<img src=<data URI> style=\"height:100px;\">
```

where a height of 100px is a default height chosen to work well within the heights of most table rows. There is the option to modify the aspect ratio of the plot (the default `aspect_ratio` is `1.0`) and this is useful for elongating any given plot to fit better within the table construct.

Value

A character object with an HTML fragment that can be placed inside of a cell.

Examples

Create a **ggplot** plot.

```
library(ggplot2)

plot_object <-
  ggplot(
    data = gtcars,
    aes(x = hp, y = trq, size = msrp)
  ) +
  geom_point(color = "blue") +
  theme(legend.position = "none")
```

Create a tibble that contains two cells (where one is a placeholder for an image), then, create a **gt** table. Use the `text_transform()` function to insert the plot using by calling `ggplot_object()` within the user- defined function.

```
dplyr::tibble(
  text = "Here is a ggplot:",
  ggplot = NA
) %>%
  gt() %>%
  text_transform(
    locations = cells_body(columns = ggplot),
    fn = function(x) {
      plot_object %>%
        ggplot_image(height = px(200))
    }
  )
```

Function ID

8-3

See Also

Other image addition functions: [local_image\(\)](#), [test_image\(\)](#), [web_image\(\)](#)

google_font

Helper function for specifying a font from the Google Fonts service

Description

The `google_font()` helper function can be used wherever a font name should be specified. There are two instances where this helper can be used: the name argument in `opt_table_font()` (for setting a table font) and in that of `cell_text()` (used with `tab_style()`). To get a helpful listing of fonts that work well in tables, use the `info_google_fonts()` function.

Usage

```
google_font(name)
```

Arguments

name The complete name of a font available in *Google Fonts*.

Value

An object of class font_css.

Examples

Use `exibble` to create a **gt** table of eight rows, replace missing values with em dashes. For text in the time column, we use the Google font "IBM Plex Mono" and set up the `default_fonts()` as fallbacks (just in case the webfont is not accessible).

```
exibble %>%
  dplyr::select(char, time) %>%
  gt() %>%
  sub_missing() %>%
  tab_style(
    style = cell_text(
      font = c(
        google_font(name = "IBM Plex Mono"),
        default_fonts()
      )
    ),
    locations = cells_body(columns = time)
  )
```

Use `sp500` to create a small **gt** table, using `fmt_currency()` to provide a dollar sign for the first row of monetary values. Then, set a larger font size for the table and use the "Merriweather" font using the `google_font()` function (with two font fallbacks: "Cochin" and the catchall "Serif" group).

```
sp500 %>%
  dplyr::slice(1:10) %>%
  dplyr::select(-volume, -adj_close) %>%
  gt() %>%
  fmt_currency(
    columns = 2:5,
    rows = 1,
    currency = "USD",
    use_seps = FALSE
  ) %>%
  tab_options(table.font.size = px(20)) %>%
  opt_table_font(
    font = list(
      google_font(name = "Merriweather"),
      "Cochin", "Serif"
    )
  )
```

Function ID

7-27

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `gt_latex_dependencies()`, `html()`, `md()`, `pct()`, `px()`, `random_id()`

grand_summary_rows *Add grand summary rows using aggregation functions*

Description

Add grand summary rows to the **gt** table by using applying aggregation functions to the table data. The summary rows incorporate all of the available data, regardless of whether some of the data are part of row groups. You choose how to format the values in the resulting summary cells by use of a formatter function (e.g, `fmt_number`) and any relevant options.

Usage

```
grand_summary_rows(
  data,
  columns = everything(),
  fns,
  missing_text = "---",
  formatter = fmt_number,
  ...
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns for which the summaries should be calculated.
<code>fns</code>	Functions used for aggregations. This can include base functions like <code>mean</code> , <code>min</code> , <code>max</code> , <code>median</code> , <code>sd</code> , or <code>sum</code> or any other user-defined aggregation function. The function(s) should be supplied within a <code>list()</code> . Within that list, we can specify the functions by use of function names in quotes (e.g., <code>"sum"</code>), as bare functions (e.g., <code>sum</code>), or as one-sided R formulas using a leading <code>~</code> . In the formula representation, a <code>.</code> serves as the data to be summarized (e.g., <code>sum(., na.rm = TRUE)</code>). The use of named arguments is recommended as the names will serve as summary row labels for the corresponding summary rows data (the labels can derived from the function names but only when not providing bare function names).

missing_text	The text to be used in place of NA values in summary cells with no data outputs.
formatter	A formatter function name. These can be any of the <code>fmt_*()</code> functions available in the package (e.g., <code>fmt_number()</code> , <code>fmt_percent()</code> , etc.), or a custom function using <code>fmt()</code> . The default function is <code>fmt_number()</code> and its options can be accessed through <code>fmt_number_options()</code> .
...	Values passed to the formatter function, where the provided values are to be in the form of named vectors. For example, when using the default formatter function, <code>fmt_number()</code> , options such as <code>decimals</code> , <code>use_seps</code> , and <code>locale</code> can be used.

Details

Should we need to obtain the summary data for external purposes, the `extract_summary()` function can be used with a `gt_tbl` object where grand summary rows were added via `grand_summary_rows()`.

Value

An object of class `gt_tbl`.

Examples

Use `sp500` to create a `gt` table with row groups. Create the grand summary rows min, max, and avg for the table with the `grand_summary_rows()` function.

```
sp500 %>%
  dplyr::filter(date >= "2015-01-05" & date <= "2015-01-16") %>%
  dplyr::arrange(date) %>%
  dplyr::mutate(week = paste0("W", strftime(date, format = "%V"))) %>%
  dplyr::select(-adj_close, -volume) %>%
  gt(
    rowname_col = "date",
    groupname_col = "week"
  ) %>%
  grand_summary_rows(
    columns = c(open, high, low, close),
    fns = list(
      min = ~min(.),
      max = ~max(.),
      avg = ~mean(.)),
    formatter = fmt_number,
    use_seps = FALSE
  )
```

Function ID

6-2

See Also

Other row addition functions: [summary_rows\(\)](#)

gt *Create a **gt** table object*

Description

The `gt()` function creates a **gt** table object when provided with table data. Using this function is the first step in a typical **gt** workflow. Once we have the **gt** table object, we can perform styling transformations before rendering to a display table of various formats.

Usage

```
gt(
  data,
  rowname_col = "rowname",
  groupname_col = dplyr::group_vars(data),
  caption = NULL,
  rownames_to_stub = FALSE,
  auto_align = TRUE,
  id = NULL,
  locale = NULL,
  row_group.sep = getOption("gt.row_group.sep", " - ")
)
```

Arguments

<code>data</code>	A data.frame object or a tibble.
<code>rowname_col</code>	The column name in the input data table to use as row captions to be placed in the display table stub. If the <code>rownames_to_stub</code> option is TRUE then any column name provided to <code>rowname_col</code> will be ignored.
<code>groupname_col</code>	The column name in the input data table to use as group labels for generation of stub row groups. If the input data table has the <code>grouped_df</code> class (through use of the <code>dplyr::group_by()</code> function or associated <code>group_by*()</code> functions) then any input here is ignored.
<code>caption</code>	An optional table caption to use for cross-referencing in R Markdown documents and bookdown book projects.
<code>rownames_to_stub</code>	An option to take rownames from the input data table as row captions in the display table stub.
<code>auto_align</code>	Optionally have column data be aligned depending on the content contained in each column of the input data. Internally, this calls <code>cols_align(align="auto")</code> for all columns.

id	The table ID. By default, with NULL, this will be a random, ten-letter ID as generated by using the <code>random_id()</code> function. A custom table ID can be used with any single-length character vector.
locale	An optional locale ID that can be set as the default locale for all functions that take a locale argument. Examples of valid locales include "en_US" for English (United States) and "fr_FR" for French (France). Refer to the information provided by the <code>info_locales()</code> to determine which locales are supported.
row_group.sep	The separator to use between consecutive group names (a possibility when providing data as a <code>grouped_df</code> with multiple groups) in the displayed stub row group label.

Details

There are a few data ingest options we can consider at this stage. We can choose to create a table stub with rowname captions using the `rowname_col` argument. Further to this, stub row groups can be created with the `groupname_col`. Both arguments take the name of a column in the input table data. Typically, the data in the `groupname_col` will consist of categories of data in a table and the data in the `rowname_col` are unique labels (perhaps unique across the entire table or unique within groups).

Row groups can also be created by passing a `grouped_df` to `gt()` by using the `dplyr::group_by()` function on the table data. In this way, two or more columns of categorical data can be used to make row groups. The `row_group.sep` argument allows for control in how the row group label will appear in the display table.

Value

An object of class `gt_tbl`.

Examples

Create a `gt` table object using the `exibble` dataset. Use the row and group columns to add a stub and row groups via the `rowname_col` and `groupname_col` arguments.

```
tab_1 <-
  exibble %>%
  gt(
    rowname_col = "row",
    groupname_col = "group"
  )
```

```
tab_1
```

The resulting `gt` table object can be used in transformations with a variety of `tab_*()`, `fmt_*()`, `cols_*()`, and even more functions available in the package.

```
tab_1 %>%
  tab_header(
    title = "Table Title",
```

```

  subtitle = "Subtitle"
) %>%
fmt_number(
  columns = num,
  decimals = 2
) %>%
cols_label(num = "number")

```

Function ID

1-1

See Also

Other table creation functions: [gt_preview\(\)](#)

gtcars

Deluxe automobiles from the 2014-2017 period

Description

Expensive and fast cars. Not your father's mtcars. Each row describes a car of a certain make, model, year, and trim. Basic specifications such as horsepower, torque, EPA MPG ratings, type of drivetrain, and transmission characteristics are provided. The country of origin for the car manufacturer is also given.

Usage

gtcars

Format

A tibble with 47 rows and 15 variables:

mfr The name of the car manufacturer

model The car's model name

year The car's model year

trim A short description of the car model's trim

bdy_style An identifier of the car's body style, which is either coupe, convertible, sedan, or hatchback

hp, hp_rpm The car's horsepower and the associated RPM level

trq, trq_rpm The car's torque and the associated RPM level

mpg_c, mpg_h The miles per gallon fuel efficiency rating for city and highway driving

drivetrain The car's drivetrain which, for this dataset is either rwd (Rear Wheel Drive) or awd (All Wheel Drive)

trsmn The codified transmission type, where the number part is the number of gears; the car could have automatic transmission (a), manual transmission (m), an option to switch between both types (am), or, direct drive (dd)

ctry_origin The country name for where the vehicle manufacturer is headquartered

msrp Manufacturer's suggested retail price in U.S. dollars (USD)

Details

All of the gtcars have something else in common (aside from the high asking prices): they are all grand tourer vehicles. These are proper GT cars that blend pure driving thrills with a level of comfort that is more expected from a fine limousine (e.g., a Rolls-Royce Phantom EWB). You'll find that, with these cars, comfort is emphasized over all-out performance. Nevertheless, the driving experience should also mean motoring at speed, doing so in style and safety.

Examples

Here is a glimpse at the data available in gtcars.

```
dplyr::glimpse(gtcars)
#> Rows: 47
#> Columns: 15
#> $ mfr      <chr> "Ford", "Ferrari", "Ferrari", "Ferrari", "Ferrari", "Ferra~
#> $ model    <chr> "GT", "458 Speciale", "458 Spider", "458 Italia", "488 GTB~
#> $ year     <dbl> 2017, 2015, 2015, 2014, 2016, 2015, 2017, 2015, 2015, 2015~
#> $ trim     <chr> "Base Coupe", "Base Coupe", "Base", "Base Coupe", "Base Co~
#> $ bdy_style <chr> "coupe", "coupe", "convertible", "coupe", "coupe", "conver~
#> $ hp       <dbl> 647, 597, 562, 562, 661, 553, 680, 652, 731, 949, 573, 545~
#> $ hp_rpm   <dbl> 6250, 9000, 9000, 9000, 8000, 7500, 8250, 8000, 8250, 9000~
#> $ trq      <dbl> 550, 398, 398, 398, 561, 557, 514, 504, 509, 664, 476, 436~
#> $ trq_rpm  <dbl> 5900, 6000, 6000, 6000, 3000, 4750, 5750, 6000, 6000, 6750~
#> $ mpg_c    <dbl> 11, 13, 13, 13, 15, 16, 12, 11, 11, 12, 21, 16, 11, 16, 12~
#> $ mpg_h    <dbl> 18, 17, 17, 17, 22, 23, 17, 16, 16, 16, 22, 22, 18, 20, 20~
#> $ drivetrain <chr> "rwd", "rwd", "rwd", "rwd", "rwd", "rwd", "rwd", "awd", "awd", "r~
#> $ trsmn    <chr> "7a", "7a", "7a", "7a", "7a", "7a", "7a", "7a", "7a", "7a"~
#> $ ctry_origin <chr> "United States", "Italy", "Italy", "Italy", "Italy", "Ital~
#> $ msrp     <dbl> 447000, 291744, 263553, 233509, 245400, 198973, 298000, 29~
```

Function ID

11-3

See Also

Other datasets: [countrypops](#), [exibble](#), [pizzaplace](#), [sp500](#), [sza](#)

gtsave

*Save a **gt** table as a file*

Description

The `gtsave()` function makes it easy to save a **gt** table to a file. The function guesses the file type by the extension provided in the output filename, producing either an HTML, PDF, PNG, LaTeX, or RTF file.

Usage

```
gtsave(data, filename, path = NULL, ...)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>filename</code>	The file name to create on disk. Ensure that an extension compatible with the output types is provided (<code>.html</code> , <code>.tex</code> , <code>.ltx</code> , <code>.rtf</code> , <code>.docx</code>). If a custom save function is provided then the file extension is disregarded.
<code>path</code>	An optional path to which the file should be saved (combined with filename).
<code>...</code>	All other options passed to the appropriate internal saving function.

Details

Output filenames with either the `.html` or `.htm` extensions will produce an HTML document. In this case, we can pass a `TRUE` or `FALSE` value to the `inline_css` option to obtain an HTML document with inlined CSS styles (the default is `FALSE`). More details on CSS inlining are available at `as_raw_html()`. We can pass values to arguments in `htmltools::save_html()` through the `...`. Those arguments are either `background` or `libdir`, please refer to the **htmltools** documentation for more details on the use of these arguments.

If the output filename is expressed with the `.rtf` extension then an RTF file will be generated. In this case, there is an option that can be passed through `...: page_numbering`. This controls RTF document page numbering and, by default, page numbering is not enabled (i.e., `page_numbering = "none"`).

We can create an image file based on the HTML version of the `gt` table. With the filename extension `.png`, we get a PNG image file. A PDF document can be generated by using the `.pdf` extension. This process is facilitated by the **webshot2** package, so, this package needs to be installed before attempting to save any table as an image file. There is the option of passing values to the underlying `webshot2::webshot()` function though `...`. Some of the more useful arguments for PNG saving are `zoom` (defaults to a scale level of 2) and `expand` (adds whitespace pixels around the cropped table image, and has a default value of 5), and `selector` (the default value is `"table"`). There are several more options available so have a look at the **webshot2** documentation for further details.

If the output filename extension is either of `.tex`, `.ltx`, or `.rnw`, a LaTeX document is produced. An output filename of `.rtf` will generate an RTF document. The LaTeX and RTF saving functions don't have any options to pass to `...`

If the output filename extension is `.docx`, a Word document file is produced. This process is facilitated by the **rmarkdown** package, so this package needs to be installed before attempting to save any table as a `.docx` document.

Value

Invisibly returns TRUE if the export process is successful.

Examples

Use `gtcars` to create a `gt` table. Add a stubhead label with the `tab_stubhead()` function to describe what is in the stub.

```
tab_1 <-
  gtcars %>%
    dplyr::select(model, year, hp, trq) %>%
    dplyr::slice(1:5) %>%
    gt(rowname_col = "model") %>%
    tab_stubhead(label = "car")
```

Export the `gt` table to an HTML file with inlined CSS (which is necessary for including the table as part of an HTML email) using `gtsave()` and the `inline_css = TRUE` option.

```
tab_1 %>% gtsave(filename = "tab_1.html", inline_css = TRUE)
```

By leaving out the `inline_css` option, we get a more conventional HTML file with embedded CSS styles.

```
tab_1 %>% gtsave(filename = "tab_1.html")
```

Saving as a PNG file results in a cropped image of an HTML table. The amount of whitespace can be set with the `expand` option.

```
tab_1 %>% gtsave("tab_1.png", expand = 10)
```

Any use of the `.tex`, `.ltx`, or `.rnw` will result in the output of a LaTeX document.

```
tab_1 %>% gtsave("tab_1.tex")
```

With the `.rtf` extension, we'll get an RTF document.

```
tab_1 %>% gtsave("tab_1.rtf")
```

With the `.docx` extension, we'll get a word/docx document.

```
tab_1 %>% gtsave("tab_1.docx")
```

Function ID

13-1

See AlsoOther table export functions: [as_latex\(\)](#), [as_raw_html\(\)](#), [as_rtf\(\)](#), [as_word\(\)](#), [extract_summary\(\)](#)

gt_latex_dependencies *Get the LaTeX dependencies required for a **gt** table*

Description

When working with Rnw (Sweave) files or otherwise writing LaTeX code, including a **gt** table can be problematic if we don't have knowledge of the LaTeX dependencies. For the most part, these dependencies are the LaTeX packages that are required for rendering a **gt** table. The `gt_latex_dependencies()` function provides an object that can be used to provide the LaTeX in an Rnw file, allowing **gt** tables to work and not yield errors due to missing packages.

Usage

```
gt_latex_dependencies()
```

Details

Here is an example Rnw document that shows how the `gt_latex_dependencies()` can be used in conjunction with a **gt** table:

```
%!sweave=knitr

\documentclass{article}

<<echo=FALSE>>=
library(gt)
@

<<results='asis', echo=FALSE>>=
gt_latex_dependencies()
@

\begin{document}

<<results='asis', echo=FALSE>>=
exibble
@

\end{document}
```


Value

An object of class `knit_asis`.

Function ID

7-25

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#), [random_id\(\)](#)

gt_output

Create a **gt** display table output element for Shiny

Description

Using `gt_output()` we can render a reactive **gt** table, a process initiated by using the [render_gt\(\)](#) function in the server component of a Shiny app. The `gt_output()` call is to be used in the Shiny `ui` component, the position and context wherein this call is made determines the where the **gt** table is rendered on the app page. It's important to note that the ID given during the [render_gt\(\)](#) call is needed as the `outputId` in `gt_output()` (e.g., `server: output$<id> <- render_gt(...); ui: gt_output(outputId = "<id>")`).

Usage

```
gt_output(outputId)
```

Arguments

`outputId` An output variable from which to read the table.

Details

We need to ensure that we have the **shiny** package installed first. This is easily by using `install.packages("shiny")`. More information on creating Shiny apps can be found at the [Shiny Site](#).

Examples

Here is a Shiny app (contained within a single file) that (1) prepares a **gt** table, (2) sets up the `ui` with `gt_output()`, and (3) sets up the server with a [render_gt\(\)](#) that uses the `gt_tbl` object as the input expression.

```
library(shiny)

gt_tbl <-
  gtcars %>%
  gt() %>%
  cols_hide(contains("_"))

ui <- fluidPage(

  gt_output(outputId = "table")
)

server <- function(input,
                    output,
                    session) {

  output$table <-
    render_gt(
      expr = gt_tbl,
      height = px(600),
      width = px(600)
    )
}
```

Function ID

12-2

See Also

Other Shiny functions: [render_gt\(\)](#)

gt_preview

*Preview a **gt** table object*

Description

Sometimes you may want to see just a small portion of your input data. We can use `gt_preview()` in place of `gt()` to get the first `x` rows of data and the last `y` rows of data (which can be set by the `top_n` and `bottom_n` arguments). It's not advised to use additional **gt** functions to further modify the output of `gt_preview()`. Furthermore, you cannot pass a **gt** object to `gt_preview()`.

Usage

```
gt_preview(data, top_n = 5, bottom_n = 1, incl_rownums = TRUE)
```

Arguments

<code>data</code>	A <code>data.frame</code> object or a tibble.
<code>top_n</code>	This value will be used as the number of rows from the top of the table to display. The default, 5, will show the first five rows of the table.
<code>bottom_n</code>	The value will be used as the number of rows from the bottom of the table to display. The default, 1, will show the final row of the table.
<code>incl_rownums</code>	An option to include the row numbers for data in the table stub. By default, this is TRUE.

Details

Any grouped data or magic columns such as `rowname` and `groupname` will be ignored by `gt_preview()` and, as such, one cannot add a stub or group rows in the output table. By default, the output table will include row numbers in a stub (including a range of row numbers for the omitted rows). This row numbering option can be deactivated by setting `incl_rownums` to FALSE.

Value

An object of class `gt_tbl`.

Examples

Use `gtcars` to create a `gt` table preview (with only a few of its columns). You'll see the first five rows and the last row.

```
gtcars %>%  
  dplyr::select(mfr, model, year) %>%  
  gt_preview()
```

Function ID

1-2

See Also

Other table creation functions: `gt()`

html

Interpret input text as HTML-formatted text

Description

For certain pieces of text (like in column labels or table headings) we may want to express them as raw HTML. In fact, with HTML, anything goes so it can be much more than just text. The `html()` function will guard the input HTML against escaping, so, your HTML tags will come through as HTML when rendered... to HTML.

Usage

```
html(text, ...)
```

Arguments

text, ... The text that is understood to be HTML text, which is to be preserved.

Value

A character object of class `html`. It's tagged as an HTML fragment that is not to be sanitized.

Examples

Use `exibble` to create a `gt` table. When adding a title, use the `html()` helper to use HTML formatting.

```
exibble %>%
  dplyr::select(currency, char) %>%
  gt() %>%
  tab_header(title = html("<em>HTML</em>"))
```

Function ID

7-2

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `md()`, `pct()`, `px()`, `random_id()`

info_currencies

View a table with info on supported currencies

Description

The `fmt_currency()` function lets us format numeric values as currencies. The table generated by the `info_currencies()` function provides a quick reference to all the available currencies. The currency identifiers are provided (name, 3-letter currency code, and 3-digit currency code) along with the each currency's exponent value (number of digits of the currency subunits). A formatted example is provided (based on the value of 49.95) to demonstrate the default formatting of each currency.

Usage

```
info_currencies(type = c("code", "symbol"), begins_with = NULL)
```

Arguments

type	The type of currency information provided. Can either be code where currency information corresponding to 3-letter currency codes is provided, or symbol where currency info for common currency names (e.g., dollar, pound, yen, etc.) is returned.
begins_with	Providing a single letter will filter currencies to only those that begin with that letter in their currency code. The default (NULL) will produce a table with all currencies displayed. This option only constrains the information table where type == "code".

Details

There are 172 currencies, which can lead to a verbose display table. To make this presentation more focused on retrieval, we can provide an initial letter corresponding to the 3-letter currency code to begins_with. This will filter currencies in the info table to just the set beginning with the supplied letter.

Value

An object of class gt_tbl.

Examples

Get a table of info on all of the currencies where the three-letter code begins with an "h".

```
info_currencies(begins_with = "h")
```

Get a table of info on all of the common currency name/symbols that can be used with [fmt_currency\(\)](#).

```
info_currencies(type = "symbol")
```

Function ID

10-3

See Also

Other information functions: [info_date_style\(\)](#), [info_google_fonts\(\)](#), [info_locales\(\)](#), [info_paletteer\(\)](#), [info_time_style\(\)](#)

info_date_style *View a table with info on date styles*

Description

The `fmt_date()` function lets us format date-based values in a convenient manner using preset styles. The table generated by the `info_date_style()` function provides a quick reference to all 14 styles, with associated number codes, the format names, and example outputs using a fixed date (2000-02-29).

Usage

```
info_date_style()
```

Value

An object of class `gt_tbl`.

Examples

Get a table of info on the different date-formatting styles (which are used by supplying a number code to the `fmt_date()` function).

```
info_date_style()
```

Function ID

10-1

See Also

Other information functions: [info_currencies\(\)](#), [info_google_fonts\(\)](#), [info_locales\(\)](#), [info_paletteer\(\)](#), [info_time_style\(\)](#)

info_google_fonts *View a table on recommended Google Fonts*

Description

The `google_font()` helper function can be used wherever a font name should be specified. There are two instances where this helper can be used: the name argument in `opt_table_font()` (for setting a table font) and in that of `cell_text()` (used with `tab_style()`). Because there is an overwhelming number of fonts available in the *Google Fonts* catalog, the `info_google_fonts()` provides a table with a set of helpful font recommendations. These fonts look great in the different parts of a `gt` table. Why? For the most part they are suitable for body text, having large counters, large x-height, reasonably low contrast, and open apertures. These font features all make for high legibility at smaller sizes.

Usage

```
info_google_fonts()
```

Value

An object of class `gt_tbl`.

Examples

Get a table of info on some of the recommended *Google Fonts* for tables.

```
info_google_fonts()
```

Function ID

10-6

See Also

Other information functions: [info_currencies\(\)](#), [info_date_style\(\)](#), [info_locales\(\)](#), [info_paletteer\(\)](#), [info_time_style\(\)](#)

info_locales

View a table with info on supported locales

Description

Many of the `fmt_*()` functions have a `locale` argument that makes locale-based formatting easier. The table generated by the `info_locales()` function provides a quick reference to all the available locales. The locale identifiers are provided (base locale ID, common display name) along with the each locale's group and decimal separator marks. A formatted numeric example is provided (based on the value of 11027) to demonstrate the default formatting of each locale.

Usage

```
info_locales(begins_with = NULL)
```

Arguments

`begins_with` Providing a single letter will filter locales to only those that begin with that letter in their base locale ID. The default (NULL) will produce a table with all locales displayed.

Details

There are 712 locales, which means that a very long display table is provided by default. To trim down the output table size, we can provide an initial letter corresponding to the base locale ID to `begins_with`. This will filter locales in the info table to just the set that begins with the supplied letter.

Value

An object of class `gt_tbl`.

Examples

Get a table of info on all of the locales where the base locale ID begins with a "v".

```
info_locales(begins_with = "v")
```

Function ID

10-4

See Also

Other information functions: [info_currencies\(\)](#), [info_date_style\(\)](#), [info_google_fonts\(\)](#), [info_paletteer\(\)](#), [info_time_style\(\)](#)

info_paletteer	<i>View a table with info on color palettes</i>
----------------	---

Description

While the `data_color()` function allows us to flexibly color data cells in our `gt` table, the harder part of this process is discovering and choosing color palettes that are suitable for the table output. We can make this process much easier in two ways: (1) by using the **paletteer** package, which makes a wide range of palettes from various R packages readily available, and (2) calling the `info_paletteer()` function to give us an information table that serves as a quick reference for all of the discrete color palettes available in **paletteer**.

Usage

```
info_paletteer(color_pkgs = NULL)
```

Arguments

`color_pkgs` A vector of color packages that determines which sets of palettes should be displayed in the information table. If this is `NULL` (the default) then all of the discrete palettes from all of the color packages represented in **paletteer** will be displayed.

Details

The palettes displayed are organized by package and by palette name. These values are required when obtaining a palette (as a vector of hexadecimal colors), from the `paletteer::paletteer_d()` function. Once we are familiar with the names of the color palette packages (e.g., **RColorBrewer**, **ggthemes**, **wesanderson**), we can narrow down the content of this information table by supplying a vector of such package names to `color_pkgs`.

Colors from the following color packages (all supported by **paletteer**) are shown by default with `info_paletteer()`:

- **awtools**, 5 palettes
- **dichromat**, 17 palettes
- **dutchmasters**, 6 palettes
- **ggpomological**, 2 palettes
- **ggsci**, 42 palettes
- **ggthemes**, 31 palettes
- **ghibli**, 27 palettes
- **grDevices**, 1 palette
- **jcolors**, 13 palettes
- **LaCroixColorR**, 21 palettes
- **NineteenEightyR**, 12 palettes
- **nord**, 16 palettes
- **ochRe**, 16 palettes
- **palettetown**, 389 palettes
- **pals**, 8 palettes
- **Polychrome**, 7 palettes
- **quickpalette**, 17 palettes
- **rcartocolor**, 34 palettes
- **RColorBrewer**, 35 palettes
- **Redmonder**, 41 palettes
- **wesanderson**, 19 palettes
- **yarr**, 21 palettes

Value

An object of class `gt_tbl`.

Examples

Get a table of info on just the "ggthemes" color palette (easily accessible from the **paletteer** package).

```
info_paletteer(color_pkgs = "ggthemes")
```

Function ID

10-5

See Also

Other information functions: [info_currencies\(\)](#), [info_date_style\(\)](#), [info_google_fonts\(\)](#), [info_locales\(\)](#), [info_time_style\(\)](#)

`info_time_style`*View a table with info on time styles*

Description

The `fmt_time()` function lets us format time-based values in a convenient manner using preset styles. The table generated by the `info_time_style()` function provides a quick reference to all five styles, with associated number codes, the format names, and example outputs using a fixed time (14:35).

Usage`info_time_style()`**Value**

An object of class `gt_tbl`.

Examples

Get a table of info on the different time-formatting styles (which are used by supplying a number code to the `fmt_time()` function).

`info_time_style()`**Function ID**

10-2

See Also

Other information functions: [info_currencies\(\)](#), [info_date_style\(\)](#), [info_google_fonts\(\)](#), [info_locales\(\)](#), [info_paletteer\(\)](#)

 local_image

Helper function for adding a local image

Description

We can flexibly add a local image (i.e., an image residing on disk) inside of a table with `local_image()` function. The function provides a convenient way to generate an HTML fragment using an on-disk PNG or SVG. Because this function is currently HTML-based, it is only useful for HTML table output. To use this function inside of data cells, it is recommended that the `text_transform()` function is used. With that function, we can specify which data cells to target and then include a `local_image()` call within the required user-defined function (for the `fn` argument). If we want to include an image in other places (e.g., in the header, within footnote text, etc.) we need to use `local_image()` within the `html()` helper function.

Usage

```
local_image(filename, height = 30)
```

Arguments

<code>filename</code>	A path to an image file.
<code>height</code>	The absolute height (px) of the image in the table cell.

Details

By itself, the function creates an HTML image tag with an image URI embedded within. We can easily experiment with a local PNG or SVG image that's available in the `gt` package using the `test_image()` function. Using that, the call `local_image(file = test_image(type = "png"))` evaluates to:

```
<img src=<data URI> style=\"height:30px;\">
```

where a height of 30px is a default height chosen to work well within the heights of most table rows.

Value

A character object with an HTML fragment that can be placed inside of a cell.

Examples

Create a tibble that contains heights of an image in pixels (one column as a string, the other as numerical values), then, create a `gt` table. Use the `text_transform()` function to insert a local test image (PNG) image with the various sizes.

```
dplyr::tibble(
  pixels = px(seq(10, 35, 5)),
  image = seq(10, 35, 5)
) %>%
  gt() %>%
```

```
text_transform(  
  locations = cells_body(columns = image),  
  fn = function(x) {  
    local_image(  
      filename = test_image(type = "png"),  
      height = as.numeric(x)  
    )  
  }  
)
```

Function ID

8-2

See Also

Other image addition functions: [ggplot_image\(\)](#), [test_image\(\)](#), [web_image\(\)](#)

md

Interpret input text as Markdown-formatted text

Description

Markdown! It's a wonderful thing. We can use it in certain places (e.g., footnotes, source notes, the table title, etc.) and expect it to render to HTML as Markdown does. There is the [html\(\)](#) helper that allows you to ferry in HTML but this function `md()`... it's almost like a two-for-one deal (you get to use Markdown plus any HTML fragments *at the same time*).

Usage

```
md(text)
```

Arguments

`text` The text that is understood to contain Markdown formatting.

Value

A character object of class `from_markdown`. It's tagged as being Markdown text and it will undergo conversion to HTML.

Examples

Use [exibble](#) to create a **gt** table. When adding a title, use the `md()` helper to use Markdown formatting.

```
exibble %>%  
  dplyr::select(currency, char) %>%  
  gt() %>%  
  tab_header(title = md("Using *Markdown*"))
```

Function ID

7-1

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `pct()`, `px()`, `random_id()`

 opt_align_table_header

Option to align the table header

Description

By default, a table header added to a **gt** table has center alignment for both the title and the subtitle elements. This function allows us to easily set the horizontal alignment of the title and subtitle to the left or right by using the "align" argument. This function serves as a convenient shortcut for `<gt_tbl> %>% tab_options(heading.align = <align>)`.

Usage

```
opt_align_table_header(data, align = c("left", "center", "right"))
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
align	The alignment of the title and subtitle elements in the table header. Options are "left" (the default), "center", or "right".

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a **gt** table with a number of table parts added. The header (consisting of the title and the subtitle) are to be aligned to the left with the `opt_align_table_header()` function.

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
```

```

    min = ~min(., na.rm = TRUE),
    max = ~max(., na.rm = TRUE)
  ) %>%
grand_summary_rows(
  columns = currency,
  fns = list(
    total = ~sum(., na.rm = TRUE)
  ) %>%
tab_source_note(source_note = "This is a source note.") %>%
tab_footnote(
  footnote = "This is a footnote.",
  locations = cells_body(columns = 1, rows = 1)
) %>%
tab_header(
  title = "The title of the table",
  subtitle = "The table's subtitle"
) %>%
opt_align_table_header(align = "left")

```

Function ID

9-3

See Also

Other table option functions: [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

 opt_all_caps

Option to use all caps in select table locations

Description

Sometimes an all-capitalized look is suitable for a table. With the `opt_all_caps()` function, we can transform characters in the column labels, the stub, and in all row groups in this way (and there's control over which of these locations are transformed).

This function serves as a convenient shortcut for `<gt;tbl %>% tab_options(<location>.text_transform = "uppercas"` (for all locations selected).

Usage

```

opt_all_caps(
  data,
  all_caps = TRUE,
  locations = c("column_labels", "stub", "row_group")
)

```

Arguments

data	A table object that is created using the <code>gt()</code> function.
all_caps	A logical value to indicate whether the text transformation to all caps should be performed (TRUE, the default) or reset to default values (FALSE) for the locations targeted.
locations	Which locations should undergo this text transformation? By default it includes all of the "column_labels", the "stub", and the "row_group" locations. However, we could just choose one or two of those.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table with a number of table parts added. All text in the column labels, the stub, and in all row groups is to be transformed to all caps using `opt_all_caps()`.

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    ) %>%
  grand_summary_rows(
    columns = currency,
    fns = list(
      total = ~sum(., na.rm = TRUE)
    ) %>%
  tab_source_note(source_note = "This is a source note.") %>%
  tab_footnote(
    footnote = "This is a footnote.",
    locations = cells_body(columns = 1, rows = 1)
  ) %>%
  tab_header(
    title = "The title of the table",
    subtitle = "The table's subtitle"
  ) %>%
  opt_all_caps()
```

Function ID

9-6

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

 opt_css

Option to add custom CSS for the table

Description

The `opt_css()` function makes it possible to add CSS to a **gt** table. This CSS will be added after the compiled CSS that **gt** generates automatically when the object is transformed to an HTML output table. You can supply `css` as a vector of lines or as a single string.

Usage

```
opt_css(data, css, add = TRUE, allow_duplicates = FALSE)
```

Arguments

`data` A table object that is created using the [gt\(\)](#) function.

`css` The CSS to include as part of the rendered table's `<style>` element.

`add` If TRUE, the default, the CSS is added to any already-defined CSS (typically from previous calls of [opt_table_font\(\)](#), [opt_css\(\)](#), or, directly setting CSS the `table.additional_css` value in [tab_options\(\)](#)). If this is set to FALSE, the CSS provided here will replace any previously-stored CSS.

`allow_duplicates` When this is FALSE (the default), the CSS provided here won't be added (provided that `add = TRUE`) if it is seen in the already-defined CSS.

Value

An object of class `gt_tbl`.

Examples

Use [exibble](#) to create a **gt** table and format the data in both columns. With `opt_css()`, insert CSS rulesets as a string and be sure to set the table ID explicitly (here as "one").

```
exibble %>%
  dplyr::select(num, currency) %>%
  gt(id = "one") %>%
  fmt_currency(
    columns = currency,
    currency = "HKD"
  ) %>%
```



```
fmt_scientific(  
  columns = num  
) %>%  
opt_css(  
  css = "  
  #one .gt_table {  
    background-color: skyblue;  
  }  
  #one .gt_row {  
    padding: 20px 30px;  
  }  
  #one .gt_col_heading {  
    text-align: center !important;  
  }  
  "  
)
```

Function ID

9-11

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_footnote_marks *Option to modify the set of footnote marks*

Description

Alter the footnote marks for any footnotes that may be present in the table. Either a vector of marks can be provided (including Unicode characters), or, a specific keyword could be used to signify a preset sequence. This function serves as a shortcut for using `tab_options(footnotes.marks = {marks})`

Usage

```
opt_footnote_marks(data, marks)
```

Arguments

data A table object that is created using the [gt\(\)](#) function.

marks Either a character vector of length greater than 1 (that will represent the series of marks) or a single keyword that represents a preset sequence of marks. The valid keywords are: "numbers" (for numeric marks), "letters" and "LETTERS" (for lowercase and uppercase alphabetic marks), "standard" (for a traditional set of four symbol marks), and "extended" (which adds two more symbols to the standard set).

Details

We can supply a vector of that will represent the series of marks. The series of footnote marks is recycled when its usage goes beyond the length of the set. At each cycle, the marks are simply doubled, tripled, and so on (e.g., * -> ** -> ***). The option exists for providing keywords for certain types of footnote marks. The keywords are:

- "numbers": numeric marks, they begin from 1 and these marks are not subject to recycling behavior
- "letters": miniscule alphabetic marks, internally uses the letters vector which contains 26 lowercase letters of the Roman alphabet
- "LETTERS": majuscule alphabetic marks, using the LETTERS vector which has 26 uppercase letters of the Roman alphabet
- "standard": symbolic marks, four symbols in total
- "extended": symbolic marks, extends the standard set by adding two more symbols, making six

Value

An object of class `gt_tbl`.

Examples

Use [sza](#) to create a `gt` table, adding three footnotes. Call `opt_footnote_marks()` to specify which footnote marks to use.

```
sza %>%
  dplyr::filter(latitude == 30) %>%
  dplyr::group_by(tst) %>%
  dplyr::summarize(
    SZA.Max = if (
      all(is.na(sza))) {
      NA
    } else {
      max(sza, na.rm = TRUE)
    },
    SZA.Min = if (
      all(is.na(sza))) {
      NA
    } else {
      min(sza, na.rm = TRUE)
    }
  )
```

```

    },
    .groups = "drop"
) %>%
gt(rowname_col = "tst") %>%
tab_spanner_delim(delim = ".") %>%
sub_missing(
  columns = everything(),
  missing_text = "90+"
) %>%
tab_stubhead(label = "TST") %>%
tab_footnote(
  footnote = "True solar time.",
  locations = cells_stubhead()
) %>%
tab_footnote(
  footnote = "Solar zenith angle.",
  locations = cells_column_spanners(
    spanners = "SZA.Max"
  )
) %>%
tab_footnote(
  footnote = "The Lowest SZA.",
  locations = cells_stub(rows = "1200")
) %>%
opt_footnote_marks(marks = "standard")

```

Function ID

9-1

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

 opt_horizontal_padding

Option to expand or contract horizontal padding

Description

Increase or decrease the horizontal padding throughout all locations of a **gt** table by use of a scale factor, which here is defined by a real number between 0 and 3. This function serves as a shortcut for setting the following eight options in [tab_options\(\)](#):

- heading.padding.horizontal

- column_labels.padding.horizontal
- data_row.padding.horizontal
- row_group.padding.horizontal
- summary_row.padding.horizontal
- grand_summary_row.padding.horizontal
- footnotes.padding.horizontal
- source_notes.padding.horizontal

Usage

```
opt_horizontal_padding(data, scale = 1)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
scale	A scale factor by which the horizontal padding will be adjusted. Must be a number between 0 and 3.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table with a number of table parts added. Expand the horizontal padding across the entire table with `opt_horizontal_padding()`.

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    ) %>%
  grand_summary_rows(
    columns = currency,
    fns = list(
      total = ~sum(., na.rm = TRUE)
    ) %>%
  tab_source_note(source_note = "This is a source note.") %>%
  tab_footnote(
    footnote = "This is a footnote.",
    locations = cells_body(columns = 1, rows = 1)
  ) %>%
  tab_header(
```

```

    title = "The title of the table",
    subtitle = "The table's subtitle"
  ) %>%
  opt_horizontal_padding(scale = 3)

```

Function ID

9-5

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_row_stripping	<i>Option to add or remove row stripping</i>
-------------------	--

Description

By default, a **gt** table does not have row stripping enabled. However, this function allows us to easily enable or disable striped rows in the table body. This function serves as a convenient shortcut for `<gt_tbl> %>% tab_options(row_stripping.include_table_body = TRUE|FALSE)`.

Usage

```
opt_row_stripping(data, row_stripping = TRUE)
```

Arguments

`data` A table object that is created using the [gt\(\)](#) function.

`row_stripping` A logical value to indicate whether row stripping should be added or removed.

Value

An object of class `gt_tbl`.

Examples

Use [exibble](#) to create a **gt** table with a number of table parts added. Next, we add row stripping to every second row with the `opt_row_stripping()` function.

```

exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(

```

```

    min = ~min(., na.rm = TRUE),
    max = ~max(., na.rm = TRUE)
  ) %>%
grand_summary_rows(
  columns = currency,
  fns = list(
    total = ~sum(., na.rm = TRUE)
  ) %>%
tab_source_note(source_note = "This is a source note.") %>%
tab_footnote(
  footnote = "This is a footnote.",
  locations = cells_body(columns = 1, rows = 1)
) %>%
tab_header(
  title = "The title of the table",
  subtitle = "The table's subtitle"
) %>%
opt_row_stripping()

```

Function ID

9-2

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_stylize

Stylize your table with a colorful look

Description

With `opt_stylize()` you can quickly style your **gt** table with a carefully curated set of background colors, line colors, and line styles. There are six styles to choose from and they largely vary in the extent of coloring applied to different table locations. Some have table borders applied, some apply darker colors to the table stub and summary sections, and, some even have vertical lines. In addition to choosing a style preset, there are six color variations that each use a range of five color tints. Each of the color tints have been fine-tuned to maximize the contrast between text and its background. There are 36 combinations of style and color to choose from.

Usage

```
opt_stylize(data, style = 1, color = "blue", add_row_stripping = TRUE)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
style	Six numbered styles are available. Simply provide a number from 1 (the default) to 6 to choose a distinct look.
color	There are six color variations: "blue" (the default), "cyan", "pink", "green", "red", and "gray".
add_row_stripping	An option to enable row stripping in the table body for the style chosen. By default, this is TRUE.

Value

an object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table with a number of table parts added. Then, use the `opt_stylize()` function to give the table some additional style (using the "cyan" color variation and style number 6).

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    ) %>%
  grand_summary_rows(
    columns = currency,
    fns = list(
      total = ~sum(., na.rm = TRUE)
    ) %>%
  tab_source_note(source_note = "This is a source note.") %>%
  tab_footnote(
    footnote = "This is a footnote.",
    locations = cells_body(columns = 1, rows = 1)
  ) %>%
  tab_header(
    title = "The title of the table",
    subtitle = "The table's subtitle"
  ) %>%
  opt_stylize(style = 6, color = "cyan")
```

Function ID

9-10

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_table_font	<i>Option to define a custom font for the table</i>
----------------	---

Description

The `opt_table_font()` function makes it possible to define a custom font for the entire **gt** table. The standard fallback fonts are still set by default but the font defined here will take precedence. You could still have different fonts in select locations in the table, and for that you would need to use [tab_style\(\)](#) in conjunction with the [cell_text\(\)](#) helper function.

Usage

```
opt_table_font(data, font, weight = NULL, style = NULL, add = TRUE)
```

Arguments

data	A table object that is created using the gt() function.
font	Either the name of a font available in the user system or a call to google_font() , which has a large selection of typefaces.
weight	The weight of the font. Can be a text-based keyword such as "normal", "bold", "lighter", "bolder", or, a numeric value between 1 and 1000, inclusive. Note that only variable fonts may support the numeric mapping of weight.
style	The text style. Can be one of either "normal", "italic", or "oblique".
add	Should this font be added to the front of the already-defined fonts for the table? By default, this is TRUE and is recommended since the list serves as fallbacks when certain fonts are not available.

Details

We have the option to supply either a system font for the `font_name`, or, a font available at the Google Fonts service by use of the [google_font\(\)](#) helper function.

Value

An object of class `gt_tbl`.

Examples

Use `sp500` to create a small **gt** table, using `fmt_currency()` to provide a dollar sign for the first row of monetary values. Then, set a larger font size for the table and use the "Merriweather" font (from *Google Fonts*, via `google_font()`) with two font fallbacks ("Cochin" and the catchall "Serif" group).

```
sp500 %>%
  dplyr::slice(1:10) %>%
  dplyr::select(-volume, -adj_close) %>%
  gt() %>%
  fmt_currency(
    columns = 2:5,
    rows = 1,
    currency = "USD",
    use_seps = FALSE
  ) %>%
  tab_options(table.font.size = px(18)) %>%
  opt_table_font(
    font = list(
      google_font(name = "Merriweather"),
      "Cochin", "Serif"
    )
  )
)
```

Use `sza` to create an eleven-row table. Within `opt_table_font()`, set up a preferred list of sans-serif fonts that are commonly available in macOS (using part of the `default_fonts()` vector as a fallback).

```
sza %>%
  dplyr::filter(
    latitude == 20 &
    month == "jan" &
    !is.na(sza)
  ) %>%
  dplyr::select(-latitude, -month) %>%
  gt() %>%
  opt_table_font(
    font = c(
      "Helvetica Neue", "Segoe UI",
      default_fonts()[-c(1:3)]
    )
  ) %>%
  opt_all_caps()
```

Function ID

9-9

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_table_lines	<i>Option to set table lines to different extents</i>
-----------------	---

Description

The `opt_table_lines()` function sets table lines in one of three possible ways: (1) all possible table lines drawn ("all"), (2) no table lines at all ("none"), and (3) resetting to the default line styles ("default"). This is great if you want to start off with lots of lines and subtract just a few of them with [tab_options\(\)](#) or [tab_style\(\)](#). Or, use it to start with a completely lineless table, adding individual lines as needed.

Usage

```
opt_table_lines(data, extent = c("all", "none", "default"))
```

Arguments

data	A table object that is created using the gt() function.
extent	The extent to which lines will be visible in the table. Options are "all", "none", or "default".

Value

An object of class `gt_tbl`.

Examples

Use [exibble](#) to create a **gt** table with a number of table parts added. Then, use the `opt_table_lines()` function to have lines everywhere there can possibly be lines.

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    ) %>%
  grand_summary_rows(
    columns = currency,
    fns = list(
```

```

    total = ~sum(., na.rm = TRUE)
  ) %>%
  tab_source_note(source_note = "This is a source note.") %>%
  tab_footnote(
    footnote = "This is a footnote.",
    locations = cells_body(columns = 1, rows = 1)
  ) %>%
  tab_header(
    title = "The title of the table",
    subtitle = "The table's subtitle"
  ) %>%
  opt_table_lines()

```

Function ID

9-7

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_outline\(\)](#), [opt_vertical_padding\(\)](#)

opt_table_outline	<i>Option to wrap an outline around the entire table</i>
-------------------	--

Description

This function puts an outline of consistent style, width, and color around the entire table. It'll write over any existing outside lines so long as the width is larger than that of the existing lines. The default value of style ("solid") will draw a solid outline, whereas a value of "none" will remove any present outline.

Usage

```
opt_table_outline(data, style = "solid", width = px(3), color = "#D3D3D3")
```

Arguments

data	A table object that is created using the gt() function.
style, width, color	The style, width, and color properties for the table outline. By default, these are "solid", px(3) (or, "3px"), and "#D3D3D3". If "none" is used then the outline is removed and any values provided for width and color will be ignored (i.e., not set).

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table with a number of table parts added. Have an outline wrap around the entire table by using `opt_table_outline()`.

```
tab_1 <-
  exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    ) %>%
  grand_summary_rows(
    columns = currency,
    fns = list(
      total = ~sum(., na.rm = TRUE)
    ) %>%
  tab_source_note(source_note = "This is a source note.") %>%
  tab_footnote(
    footnote = "This is a footnote.",
    locations = cells_body(columns = 1, rows = 1)
  ) %>%
  tab_header(
    title = "The title of the table",
    subtitle = "The table's subtitle"
  ) %>%
  opt_table_outline()
```

```
tab_1
```

Remove the table outline with the `style = "none"` option.

```
tab_1 %>% opt_table_outline(style = "none")
```

Function ID

9-8

See Also

Other table option functions: `opt_align_table_header()`, `opt_all_caps()`, `opt_css()`, `opt_footnote_marks()`, `opt_horizontal_padding()`, `opt_row_stripping()`, `opt_stylize()`, `opt_table_font()`, `opt_table_lines()`, `opt_vertical_padding()`

opt_vertical_padding *Option to expand or contract vertical padding*

Description

Increase or decrease the vertical padding throughout all locations of a **gt** table by use of a scale factor, which here is defined by a real number between 0 and 3. This function serves as a shortcut for setting the following eight options in `tab_options()`:

- heading.padding
- column_labels.padding
- data_row.padding
- row_group.padding
- summary_row.padding
- grand_summary_row.padding
- footnotes.padding
- source_notes.padding

Usage

```
opt_vertical_padding(data, scale = 1)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
scale	A scale factor by which the vertical padding will be adjusted. Must be a number between 0 and 3.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a **gt** table with a number of table parts added. Contract the vertical padding across the entire table with `opt_vertical_padding()`.

```
exibble %>%
  gt(rowname_col = "row", groupname_col = "group") %>%
  summary_rows(
    groups = "grp_a",
    columns = c(num, currency),
    fns = list(
      min = ~min(., na.rm = TRUE),
      max = ~max(., na.rm = TRUE)
    )
  )
```

```

    ) %>%
grand_summary_rows(
  columns = currency,
  fns = list(
    total = ~sum(., na.rm = TRUE)
  ) %>%
tab_source_note(source_note = "This is a source note.") %>%
tab_footnote(
  footnote = "This is a footnote.",
  locations = cells_body(columns = 1, rows = 1)
) %>%
tab_header(
  title = "The title of the table",
  subtitle = "The table's subtitle"
) %>%
opt_vertical_padding(scale = 0.25)

```

Function ID

9-4

See Also

Other table option functions: [opt_align_table_header\(\)](#), [opt_all_caps\(\)](#), [opt_css\(\)](#), [opt_footnote_marks\(\)](#), [opt_horizontal_padding\(\)](#), [opt_row_stripping\(\)](#), [opt_stylize\(\)](#), [opt_table_font\(\)](#), [opt_table_lines\(\)](#), [opt_table_outline\(\)](#)

pct

Helper for providing a numeric value as percentage

Description

A percentage value acts as a length value that is relative to an initial state. For instance an 80 percent value for something will size the target to 80 percent the size of its 'previous' value. This type of sizing is useful for sizing up or down a length value with an intuitive measure. This helper function can be used for the setting of font sizes (e.g., in [cell_text\(\)](#)) and altering the thicknesses of lines (e.g., in [cell_borders\(\)](#)). Should a more exact definition of size be required, the analogous helper function [pct\(\)](#) will be more useful.

Usage

```
pct(x)
```

Arguments

x the numeric value to format as a string percentage for some [tab_options\(\)](#) arguments that can take percentage values (e.g., `table.width`).

Value

A character vector with a single value in percentage units.

Examples

Use `exibble` to create a `gt` table. Use the `pct()` helper to define the font size for the column labels.

```
exibble %>%
  gt() %>%
  tab_style(
    style = cell_text(size = pct(75)),
    locations = cells_column_labels()
  )
```

Function ID

7-4

See Also

Other helper functions: `adjust_luminance()`, `cell_borders()`, `cell_fill()`, `cell_text()`, `cells_body()`, `cells_column_labels()`, `cells_column_spanners()`, `cells_footnotes()`, `cells_grand_summary()`, `cells_row_groups()`, `cells_source_notes()`, `cells_stub_grand_summary()`, `cells_stub_summary()`, `cells_stubhead()`, `cells_stub()`, `cells_summary()`, `cells_title()`, `currency()`, `default_fonts()`, `escape_latex()`, `google_font()`, `gt_latex_dependencies()`, `html()`, `md()`, `px()`, `random_id()`

pizzaplace

A year of pizza sales from a pizza place

Description

A synthetic dataset that describes pizza sales for a pizza place somewhere in the US. While the contents are artificial, the ingredients used to make the pizzas are far from it. There are 32 different pizzas that fall into 4 different categories: `classic` (classic pizzas: 'You probably had one like it before, but never like this!'), `chicken` (pizzas with chicken as a major ingredient: 'Try the South-west Chicken Pizza! You'll love it!'), `supreme` (pizzas that try a little harder: 'My Soppressata pizza uses only the finest salami from my personal salumist!'), and, `veggie` (pizzas without any meats whatsoever: 'My Five Cheese pizza has so many cheeses, I can only offer it in Large Size!').

Usage

pizzaplace

Format

A tibble with 49574 rows and 7 variables:

- id** The ID for the order, which consists of one or more pizzas at a give date and time
- date** A character representation of the order date, expressed in the ISO 8601 date format (YYYY-MM-DD)
- time** A character representation of the order time, expressed as a 24-hour time the ISO 8601 extended time format (hh:mm:ss)
- name** The short name for the pizza
- size** The size of the pizza, which can either be S, M, L, XL (rare!), or XXL (even rarer!); most pizzas are available in the S, M, and L sizes but exceptions apply
- type** The category or type of pizza, which can either be classic, chicken, supreme, or veggie
- price** The price of the pizza and the amount that it sold for (in USD)

Details

Each pizza in the dataset is identified by a short name. The following listings provide the full names of each pizza and their main ingredients.

Classic Pizzas:

- `classic_dlx`: The Classic Deluxe Pizza (Pepperoni, Mushrooms, Red Onions, Red Peppers, Bacon)
- `big_meat`: The Big Meat Pizza (Bacon, Pepperoni, Italian Sausage, Chorizo Sausage)
- `pepperoni`: The Pepperoni Pizza (Mozzarella Cheese, Pepperoni)
- `hawaiian`: The Hawaiian Pizza (Sliced Ham, Pineapple, Mozzarella Cheese)
- `pep_msh_pep`: The Pepperoni, Mushroom, and Peppers Pizza (Pepperoni, Mushrooms, and Green Peppers)
- `ital_cpcllo`: The Italian Capocollo Pizza (Capocollo, Red Peppers, Tomatoes, Goat Cheese, Garlic, Oregano)
- `napolitana`: The Napolitana Pizza (Tomatoes, Anchovies, Green Olives, Red Onions, Garlic)
- `the_greek`: The Greek Pizza (Kalamata Olives, Feta Cheese, Tomatoes, Garlic, Beef Chuck Roast, Red Onions)

Chicken Pizzas:

- `thai_ckn`: The Thai Chicken Pizza (Chicken, Pineapple, Tomatoes, Red Peppers, Thai Sweet Chilli Sauce)
- `bbq_ckn`: The Barbecue Chicken Pizza (Barbecued Chicken, Red Peppers, Green Peppers, Tomatoes, Red Onions, Barbecue Sauce)
- `southw_ckn`: The Southwest Chicken Pizza (Chicken, Tomatoes, Red Peppers, Red Onions, Jalapeno Peppers, Corn, Cilantro, Chipotle Sauce)
- `cali_ckn`: The California Chicken Pizza (Chicken, Artichoke, Spinach, Garlic, Jalapeno Peppers, Fontina Cheese, Gouda Cheese)

- `ckn_pesto`: The Chicken Pesto Pizza (Chicken, Tomatoes, Red Peppers, Spinach, Garlic, Pesto Sauce)
- `ckn_alfredo`: The Chicken Alfredo Pizza (Chicken, Red Onions, Red Peppers, Mushrooms, Asiago Cheese, Alfredo Sauce)

Supreme Pizzas:

- `brie_carre`: The Brie Carre Pizza (Brie Carre Cheese, Prosciutto, Caramelized Onions, Pears, Thyme, Garlic)
- `calabrese`: The Calabrese Pizza ('Nduja Salami, Pancetta, Tomatoes, Red Onions, Friggitello Peppers, Garlic)
- `soppressata`: The Soppressata Pizza (Soppressata Salami, Fontina Cheese, Mozzarella Cheese, Mushrooms, Garlic)
- `sicilian`: The Sicilian Pizza (Coarse Sicilian Salami, Tomatoes, Green Olives, Luganega Sausage, Onions, Garlic)
- `ital_supr`: The Italian Supreme Pizza (Calabrese Salami, Capocollo, Tomatoes, Red Onions, Green Olives, Garlic)
- `peppr_salami`: The Pepper Salami Pizza (Genoa Salami, Capocollo, Pepperoni, Tomatoes, Asiago Cheese, Garlic)
- `prsc_argla`: The Prosciutto and Arugula Pizza (Prosciutto di San Daniele, Arugula, Mozzarella Cheese)
- `spinach_supr`: The Spinach Supreme Pizza (Spinach, Red Onions, Pepperoni, Tomatoes, Artichokes, Kalamata Olives, Garlic, Asiago Cheese)
- `spicy_ital`: The Spicy Italian Pizza (Capocollo, Tomatoes, Goat Cheese, Artichokes, Peperoncini verdi, Garlic)

Vegetable Pizzas

- `mexicana`: The Mexicana Pizza (Tomatoes, Red Peppers, Jalapeno Peppers, Red Onions, Cilantro, Corn, Chipotle Sauce, Garlic)
- `four_cheese`: The Four Cheese Pizza (Ricotta Cheese, Gorgonzola Piccante Cheese, Mozzarella Cheese, Parmigiano Reggiano Cheese, Garlic)
- `five_cheese`: The Five Cheese Pizza (Mozzarella Cheese, Provolone Cheese, Smoked Gouda Cheese, Romano Cheese, Blue Cheese, Garlic)
- `spin_pesto`: The Spinach Pesto Pizza (Spinach, Artichokes, Tomatoes, Sun-dried Tomatoes, Garlic, Pesto Sauce)
- `veggie_veg`: The Vegetables + Vegetables Pizza (Mushrooms, Tomatoes, Red Peppers, Green Peppers, Red Onions, Zucchini, Spinach, Garlic)
- `green_garden`: The Green Garden Pizza (Spinach, Mushrooms, Tomatoes, Green Olives, Feta Cheese)
- `mediterraneo`: The Mediterranean Pizza (Spinach, Artichokes, Kalamata Olives, Sun-dried Tomatoes, Feta Cheese, Plum Tomatoes, Red Onions)
- `spinach_fet`: The Spinach and Feta Pizza (Spinach, Mushrooms, Red Onions, Feta Cheese, Garlic)
- `ital_veggie`: The Italian Vegetables Pizza (Eggplant, Artichokes, Tomatoes, Zucchini, Red Peppers, Garlic, Pesto Sauce)

Examples

Here is a glimpse at the pizza data available in pizzaplace.

```
dplyr::glimpse(pizzaplace)
#> Rows: 49,574
#> Columns: 7
#> $ id   <chr> "2015-000001", "2015-000002", "2015-000002", "2015-000002", "201~
#> $ date <chr> "2015-01-01", "2015-01-01", "2015-01-01", "2015-01-01", "2015-01~
#> $ time <chr> "11:38:36", "11:57:40", "11:57:40", "11:57:40", "11:57:40", "11:~
#> $ name <chr> "hawaiian", "classic_dlx", "mexicana", "thai_ckn", "five_cheese"~
#> $ size <chr> "M", "M", "M", "L", "L", "L", "L", "M", "M", "M", "S", "S", "S", ~
#> $ type <chr> "classic", "classic", "veggie", "chicken", "veggie", "supreme", ~
#> $ price <dbl> 13.25, 16.00, 16.00, 20.75, 18.50, 20.75, 20.75, 16.50, 16.50, 1~
```

Function ID

11-5

See Also

Other datasets: [country pops](#), [exibble](#), [gtcars](#), [sp500](#), [sza](#)

px

Helper for providing a numeric value as pixels value

Description

For certain parameters, a length value is required. Examples include the setting of font sizes (e.g., in [cell_text\(\)](#)) and thicknesses of lines (e.g., in [cell_borders\(\)](#)). Setting a length in pixels with [px\(\)](#) allows for an absolute definition of size as opposed to the analogous helper function [pct\(\)](#).

Usage

```
px(x)
```

Arguments

x the numeric value to format as a string (e.g., "12px") for some [tab_options\(\)](#) arguments that can take values as units of pixels (e.g., `table.font.size`).

Value

A character vector with a single value in pixel units.

Examples

Use [exibble](#) to create a **gt** table. Use the `px()` helper to define the font size for the column labels.

```
exibble %>%
  gt() %>%
  tab_style(
    style = cell_text(size = px(20)),
    locations = cells_column_labels()
  )
```

Function ID

7-3

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [random_id\(\)](#)

random_id

*Helper for creating a random id for a **gt** table*

Description

This helper function can be used to create a random, character-based ID value argument of variable length (the default is 10 letters).

Usage

```
random_id(n = 10)
```

Arguments

`n` The number of lowercase letters to use for the random ID.

Value

A character vector containing a single, random ID.

Function ID

7-23

See Also

Other helper functions: [adjust_luminance\(\)](#), [cell_borders\(\)](#), [cell_fill\(\)](#), [cell_text\(\)](#), [cells_body\(\)](#), [cells_column_labels\(\)](#), [cells_column_spanners\(\)](#), [cells_footnotes\(\)](#), [cells_grand_summary\(\)](#), [cells_row_groups\(\)](#), [cells_source_notes\(\)](#), [cells_stub_grand_summary\(\)](#), [cells_stub_summary\(\)](#), [cells_stubhead\(\)](#), [cells_stub\(\)](#), [cells_summary\(\)](#), [cells_title\(\)](#), [currency\(\)](#), [default_fonts\(\)](#), [escape_latex\(\)](#), [google_font\(\)](#), [gt_latex_dependencies\(\)](#), [html\(\)](#), [md\(\)](#), [pct\(\)](#), [px\(\)](#)

render_gt

*A **gt** display table render function for use in Shiny***Description**

With `render_gt()` we can create a reactive **gt** table that works wonderfully once assigned to an output slot (with `gt_output()`). This function is to be used within Shiny's `server()` component. We have some options for controlling the size of the container holding the **gt** table. The width and height arguments allow for sizing the container, and the `align` argument allows us to align the table within the container (some other fine-grained options for positioning are available in the `tab_options()` function).

Usage

```
render_gt(
  expr,
  width = NULL,
  height = NULL,
  align = NULL,
  env = parent.frame(),
  quoted = FALSE,
  outputArgs = list()
)
```

Arguments

<code>expr</code>	An expression that creates a gt table object. For sake of convenience, a data frame or tibble can be used here (it will be automatically introduced to <code>gt()</code> with its default options).
<code>width, height</code>	The width and height of the table's container. Either can be specified as a single-length character with units of pixels or as a percentage. If provided as a single-length numeric vector, it is assumed that the value is given in units of pixels. The <code>px()</code> and <code>pct()</code> helper functions can also be used to pass in numeric values and obtain values as pixel or percent units.
<code>align</code>	The alignment of the table in its container. By default, this is "center". Other options are "left" and "right".
<code>env</code>	The environment in which to evaluate the <code>expr</code> .
<code>quoted</code>	Is <code>expr</code> a quoted expression (with <code>quote()</code>)? This is useful if you want to save an expression in a variable.

`outputArgs` A list of arguments to be passed through to the implicit call to `gt_output()` when `render_gt` is used in an interactive R Markdown document.

Details

We need to ensure that we have the **shiny** package installed first. This is easily by using `install.packages("shiny")`. More information on creating Shiny apps can be found at the [Shiny Site](#).

Examples

Here is a Shiny app (contained within a single file) that (1) prepares a **gt** table, (2) sets up the ui with `gt_output()`, and (3) sets up the server with a `render_gt()` that uses the `gt_tbl` object as the input expression.

```
library(shiny)

gt_tbl <-
  gtcars %>%
  gt() %>%
  cols_hide(contains("_"))

ui <- fluidPage(

  gt_output(outputId = "table")
)

server <- function(input,
                    output,
                    session) {

  output$table <-
    render_gt(
      expr = gt_tbl,
      height = px(600),
      width = px(600)
    )
}
```

Function ID

12-1

See Also

Other Shiny functions: `gt_output()`

row_group_order	<i>Modify the ordering of any row groups</i>
-----------------	--

Description

We can modify the display order of any row groups in a **gt** object with the `row_group_order()` function. The `groups` argument takes a vector of row group ID values. After this function is invoked, the row groups will adhere to this revised ordering. It isn't necessary to provide all row ID values in `groups`, rather, what is provided will assume the specified ordering at the top of the table and the remaining row groups will follow in their original ordering.

Usage

```
row_group_order(data, groups)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>groups</code>	A character vector of row group ID values corresponding to the revised ordering. While this vector must contain valid group ID values, it is not required to have all of the row group IDs within it; any omitted values will be added to the end while preserving the original ordering.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a **gt** table with a stub and with row groups. Modify the order of the row groups with `row_group_order()`, specifying the new ordering in `groups`.

```
exibble %>%  
  dplyr::select(char, currency, row, group) %>%  
  gt(  
    rowname_col = "row",  
    groupname_col = "group"  
  ) %>%  
  row_group_order(groups = c("grp_b", "grp_a"))
```

Function ID

5-1

`sp500`*Daily S&P 500 Index data from 1950 to 2015*

Description

This dataset provides daily price indicators for the S&P 500 index from the beginning of 1950 to the end of 2015. The index includes 500 leading companies and captures about 80\

Usage

`sp500`

Format

A tibble with 16607 rows and 7 variables:

date The date expressed as Date values

open, high, low, close The day's opening, high, low, and closing prices in USD; the close price is adjusted for splits

volume the number of trades for the given date

adj_close The close price adjusted for both dividends and splits

Examples

Here is a glimpse at the data available in `sp500`.

```
dplyr::glimpse(sp500)
#> Rows: 16,607
#> Columns: 7
#> $ date      <date> 2015-12-31, 2015-12-30, 2015-12-29, 2015-12-28, 2015-12-24, ~
#> $ open      <dbl> 2060.59, 2077.34, 2060.54, 2057.77, 2063.52, 2042.20, 2023.1~
#> $ high      <dbl> 2062.54, 2077.34, 2081.56, 2057.77, 2067.36, 2064.73, 2042.7~
#> $ low       <dbl> 2043.62, 2061.97, 2060.54, 2044.20, 2058.73, 2042.20, 2020.4~
#> $ close     <dbl> 2043.94, 2063.36, 2078.36, 2056.50, 2060.99, 2064.29, 2038.9~
#> $ volume    <dbl> 2655330000, 2367430000, 2542000000, 2492510000, 1411860000, ~
#> $ adj_close <dbl> 2043.94, 2063.36, 2078.36, 2056.50, 2060.99, 2064.29, 2038.9~
```

Function ID

`11-4`

See Also

Other datasets: [countrypops](#), [exibble](#), [gtcars](#), [pizzaplace](#), [sza](#)

sub_large_vals	<i>Substitute large values in the table body</i>
----------------	--

Description

Wherever there is numerical data that are very large in value, replacement text may be better for explanatory purposes. The `sub_large_vals()` function allows for this replacement through specification of a threshold, a `large_pattern`, and the sign of the values to be considered.

Usage

```
sub_large_vals(
  data,
  columns = everything(),
  rows = everything(),
  threshold = 1e+12,
  large_pattern = ">={x}",
  sign = "+"
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
<code>rows</code>	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in <code>columns</code> being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
<code>threshold</code>	The threshold value with which values should be considered large enough for replacement.
<code>large_pattern</code>	The pattern text to be used in place of the suitably large values in the rendered table.
<code>sign</code>	The sign of the numbers to be considered in the replacement. By default, we only consider positive values (" <code>+</code> "). The other option (" <code>-</code> ") can be used to consider only negative values.

Details

Targeting of values is done through `columns` and additionally by `rows` (if nothing is provided for `rows` then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the `rows` argument. See the Arguments section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Let's generate a simple, single-column tibble that contains an assortment of values that could potentially undergo some substitution.

```
tbl <- dplyr::tibble(num = c(0, NA, 10^(8:14)))
```

```
tbl
#> # A tibble: 9 x 1
#>   num
#>   <dbl>
#> 1  0
#> 2 NA
#> 3 1e 8
#> 4 1e 9
#> 5 1e10
#> 6 1e11
#> 7 1e12
#> 8 1e13
#> 9 1e14
```

The `tbl` contains a variety of smaller numbers and some might be small enough to reformat with a threshold value. With `sub_small_vals()` we can do just that:

```
tbl %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_large_vals()
```

Large negative values can also be handled but they are handled specially by the `sign` parameter. Setting that to `"-"` will format only the large values that are negative. Notice that with the default `large_pattern` value of `">={x}"` the `">="` is automatically changed to `"<="`.

```
tbl %>%
  dplyr::mutate(num = -num) %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_large_vals(sign = "-")
```

You don't have to settle with the default threshold value or the default replacement pattern (in `large_pattern`). This can be changed and the `"{x}"` in `large_pattern` (which uses the threshold value) can even be omitted.

```
tbl %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_large_vals(
    threshold = 5E10,
    large_pattern = "hugemongous"
  )
```

Function ID

3-19

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

sub_missing

Substitute missing values in the table body

Description

Wherever there is missing data (i.e., NA values) customizable content may present better than the standard NA text that would otherwise appear. The `sub_missing()` function allows for this replacement through its `missing_text` argument (where an em dash serves as the default).

Usage

```
sub_missing(
  data,
  columns = everything(),
  rows = everything(),
  missing_text = "---"
)
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in c() , a vector of column indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() .

rows	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
missing_text	The text to be used in place of NA values in the rendered table.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the Arguments section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. The NA values in different columns will be given replacement text with two calls of `sub_missing()`.

```
exibble %>%
  dplyr::select(-row, -group) %>%
  gt() %>%
  sub_missing(
    columns = 1:2,
    missing_text = "missing"
  ) %>%
  sub_missing(
    columns = 4:7,
    missing_text = "nothing"
  )
```

Function ID

3-16

See Also

Other data formatting functions: `data_color()`, `fmt_bytes()`, `fmt_currency()`, `fmt_datetime()`, `fmt_date()`, `fmt_duration()`, `fmt_engineering()`, `fmt_fraction()`, `fmt_integer()`, `fmt_markdown()`, `fmt_number()`, `fmt_partsper()`, `fmt_passthrough()`, `fmt_percent()`, `fmt_scientific()`, `fmt_time()`, `fmt()`, `sub_large_vals()`, `sub_small_vals()`, `sub_zero()`, `text_transform()`

sub_small_vals	<i>Substitute small values in the table body</i>
----------------	--

Description

Wherever there is numerical data that are very small in value, replacement text may be better for explanatory purposes. The `sub_small_vals()` function allows for this replacement through specification of a threshold, a `small_pattern`, and the sign of the values to be considered.

Usage

```
sub_small_vals(
  data,
  columns = everything(),
  rows = everything(),
  threshold = 0.01,
  small_pattern = if (sign == "+") "<{x}" else md("<*abs*(-{x})"),
  sign = "+"
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in <code>c()</code> , a vector of column indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> .
<code>rows</code>	Optional rows to format. Providing <code>everything()</code> (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: <code>starts_with()</code> , <code>ends_with()</code> , <code>contains()</code> , <code>matches()</code> , <code>one_of()</code> , <code>num_range()</code> , and <code>everything()</code> . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
<code>threshold</code>	The threshold value with which values should be considered small enough for replacement.
<code>small_pattern</code>	The pattern text to be used in place of the suitably small values in the rendered table.
<code>sign</code>	The sign of the numbers to be considered in the replacement. By default, we only consider positive values ("+"). The other option ("-") can be used to consider only negative values.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the Arguments section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Let's generate a simple, single-column tibble that contains an assortment of values that could potentially undergo some substitution.

```
tbl <- dplyr::tibble(num = c(10^(-4:2), 0, NA))
```

```
tbl
#> # A tibble: 9 x 1
#>   num
#>   <dbl>
#> 1  0.0001
#> 2  0.001
#> 3  0.01
#> 4  0.1
#> 5  1
#> 6  10
#> 7 100
#> 8  0
#> 9  NA
```

The `tbl` contains a variety of smaller numbers and some might be small enough to reformat with a threshold value. With `sub_small_vals()` we can do just that:

```
tbl %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_small_vals()
```

Small and negative values can also be handled but they are handled specially by the `sign` parameter. Setting that to `"-"` will format only the small, negative values.

```
tbl %>%
  dplyr::mutate(num = -num) %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_small_vals(sign = "-")
```

You don't have to settle with the default threshold value or the default replacement pattern (in `small_pattern`). This can be changed and the `"{x}"` in `small_pattern` (which uses the threshold value) can even be omitted.

```
tbl %>%
  gt() %>%
```

```

fmt_number(columns = num) %>%
sub_small_vals(
  threshold = 0.0005,
  small_pattern = "smol"
)

```

Function ID

3-18

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_zero\(\)](#), [text_transform\(\)](#)

sub_zero	<i>Substitute zero values in the table body</i>
----------	---

Description

Wherever there is numerical data that are zero in value, replacement text may be better for explanatory purposes. The `sub_zero()` function allows for this replacement through its `zero_text` argument.

Usage

```
sub_zero(data, columns = everything(), rows = everything(), zero_text = "nil")
```

Arguments

<code>data</code>	A table object that is created using the gt() function.
<code>columns</code>	The columns to format. Can either be a series of column names provided in c() , a vector of column indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() .
<code>rows</code>	Optional rows to format. Providing everything() (the default) results in all rows in columns being formatted. Alternatively, we can supply a vector of row captions within c() , a vector of row indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , num_range() , and everything() . We can also use expressions to filter down to the rows we need (e.g., <code>[colname_1] > 100 & [colname_2] < 5</code>).
<code>zero_text</code>	The text to be used in place of zero values in the rendered table.

Details

Targeting of values is done through columns and additionally by rows (if nothing is provided for rows then entire columns are selected). Conditional formatting is possible by providing a conditional expression to the rows argument. See the Arguments section for more information on this.

Value

An object of class `gt_tbl`.

Examples

Let's generate a simple, single-column tibble that contains an assortment of values that could potentially undergo some substitution.

```
tbl <- dplyr::tibble(num = c(10^(-1:2), 0, 0, 10^(4:6)))
```

```
tbl
#> # A tibble: 9 x 1
#>   num
#>   <dbl>
#> 1  0.1
#> 2    1
#> 3   10
#> 4  100
#> 5    0
#> 6    0
#> 7 10000
#> 8 100000
#> 9 1000000
```

With this table, the zero values in will be given replacement text with a single call of `sub_zero()`.

```
tbl %>%
  gt() %>%
  fmt_number(columns = num) %>%
  sub_zero()
```

Function ID

3-17

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [text_transform\(\)](#)

summary_rows

*Add groupwise summary rows using aggregation functions***Description**

Add summary rows to one or more row groups by using the table data and any suitable aggregation functions. You choose how to format the values in the resulting summary cells by use of a formatter function (e.g, `fmt_number`, etc.) and any relevant options.

Usage

```
summary_rows(
  data,
  groups = NULL,
  columns = everything(),
  fns,
  missing_text = "---",
  formatter = fmt_number,
  ...
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>groups</code>	The groups to consider for generation of groupwise summary rows. By default this is set to <code>NULL</code> , which results in the formation of grand summary rows (a grand summary operates on all table data). Providing the names of row groups in <code>c()</code> will create a groupwise summary and generate summary rows for the specified groups. Setting this to <code>TRUE</code> indicates that all available groups will receive groupwise summary rows.
<code>columns</code>	The columns for which the summaries should be calculated.
<code>fns</code>	Functions used for aggregations. This can include base functions like <code>mean</code> , <code>min</code> , <code>max</code> , <code>median</code> , <code>sd</code> , or <code>sum</code> or any other user-defined aggregation function. The function(s) should be supplied within a <code>list()</code> . Within that list, we can specify the functions by use of function names in quotes (e.g., <code>"sum"</code>), as bare functions (e.g., <code>sum</code>), or as one-sided R formulas using a leading <code>~</code> . In the formula representation, a <code>.</code> serves as the data to be summarized (e.g., <code>sum(., na.rm = TRUE)</code>). The use of named arguments is recommended as the names will serve as summary row labels for the corresponding summary rows data (the labels can derived from the function names but only when not providing bare function names).
<code>missing_text</code>	The text to be used in place of NA values in summary cells with no data outputs.
<code>formatter</code>	A formatter function name. These can be any of the <code>fmt_*()</code> functions available in the package (e.g., <code>fmt_number()</code> , <code>fmt_percent()</code> , etc.), or a custom function using <code>fmt()</code> . The default function is <code>fmt_number()</code> and its options can be accessed through <code>...</code>

... Values passed to the formatter function, where the provided values are to be in the form of named vectors. For example, when using the default formatter function, `fmt_number()`, options such as `decimals`, `use_seps`, and `locale` can be used.

Details

Should we need to obtain the summary data for external purposes, the `extract_summary()` function can be used with a `gt_tbl` object where summary rows were added via `summary_rows()`.

Value

An object of class `gt_tbl`.

Examples

Use `sp500` to create a `gt` table with row groups. Create the summary rows labeled `min`, `max`, and `avg` by row group (where each each row group is a week number) with the `summary_rows()` function.

```
sp500 %>%
  dplyr::filter(date >= "2015-01-05" & date <="2015-01-16") %>%
  dplyr::arrange(date) %>%
  dplyr::mutate(week = paste0( "W", strftime(date, format = "%V"))) %>%
  dplyr::select(-adj_close, -volume) %>%
  gt(
    rowname_col = "date",
    groupname_col = "week"
  ) %>%
  summary_rows(
    groups = TRUE,
    columns = c(open, high, low, close),
    fns = list(
      min = ~min(.),
      max = ~max(.),
      avg = ~mean(.)),
    formatter = fmt_number,
    use_seps = FALSE
  )
```

Function ID

6-1

See Also

Other row addition functions: `grand_summary_rows()`

sza *Twice hourly solar zenith angles by month & latitude*

Description

This dataset contains solar zenith angles (in degrees, with the range of 0-90) every half hour from 04:00 to 12:00, true solar time. This set of values is calculated on the first of every month for 4 different northern hemisphere latitudes. For determination of afternoon values, the presented tabulated values are symmetric about noon.

Usage

sza

Format

A tibble with 816 rows and 4 variables:

latitude The latitude in decimal degrees for the observations

month The measurement month; all calculations were conducted for the first day of each month

tst The true solar time at the given latitude and date (first of month) for which the solar zenith angle is calculated

sza The solar zenith angle in degrees, where NAs indicate that sunrise hadn't yet occurred by the tst value

Details

The solar zenith angle (SZA) is one measure that helps to describe the sun's path across the sky. It's defined as the angle of the sun relative to a line perpendicular to the earth's surface. It is useful to calculate the SZA in relation to the true solar time. True solar time relates to the position of the sun with respect to the observer, which is different depending on the exact longitude. For example, two hours before the sun crosses the meridian (the highest point it would reach that day) corresponds to a true solar time of 10 a.m. The SZA has a strong dependence on the observer's latitude. For example, at a latitude of 50 degrees N at the start of January, the noontime SZA is 73.0 but a different observer at 20 degrees N would measure the noontime SZA to be 43.0 degrees.

Examples

Here is a glimpse at the data available in `sza`.

```
dplyr::glimpse(sza)
#> Rows: 816
#> Columns: 4
#> $ latitude <dbl> 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20, 2~
#> $ month <fct> jan, jan, jan, jan, jan, jan, jan, jan, jan, jan, jan, jan, jan, j~
#> $ tst <chr> "0400", "0430", "0500", "0530", "0600", "0630", "0700", "0730~
#> $ sza <dbl> NA, NA, NA, NA, NA, NA, 84.9, 78.7, 72.7, 66.1, 61.5, 56.5, 5~
```

Function ID

11-2

Source

Calculated Actinic Fluxes (290 - 700 nm) for Air Pollution Photochemistry Applications (Peterson, 1976), available at: <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9100JA26.txt>.

See Also

Other datasets: [countrypops](#), [exibble](#), [gtcars](#), [pizzaplace](#), [sp500](#)

tab_footnote	<i>Add a table footnote</i>
--------------	-----------------------------

Description

The `tab_footnote()` function can make it a painless process to add a footnote to a **gt** table. There are two components to a footnote: (1) a footnote mark that is attached to the targeted cell text, and (2) the footnote text (that starts with the corresponding footnote mark) that is placed in the table's footer area. Each call of `tab_footnote()` will add a different note, and one or more cells can be targeted via the location helper functions (e.g., `cells_body()`, `cells_column_labels()`, etc.).

Usage

```
tab_footnote(
  data,
  footnote,
  locations = NULL,
  placement = c("auto", "right", "left")
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
footnote	The text to be used in the footnote. We can optionally use the <code>md()</code> and <code>html()</code> functions to style the text as Markdown or to retain HTML elements in the footnote text.
locations	The cell or set of cells to be associated with the footnote. Supplying any of the <code>cells_*</code> () helper functions is a useful way to target the location cells that are associated with the footnote text. These helper functions are: <code>cells_title()</code> , <code>cells_stubhead()</code> , <code>cells_column_spanners()</code> , <code>cells_column_labels()</code> , <code>cells_row_groups()</code> , <code>cells_stub()</code> , <code>cells_body()</code> , <code>cells_summary()</code> , <code>cells_grand_summary()</code> , <code>cells_stub_summary()</code> , and <code>cells_stub_grand_summary()</code> . Additionally, we can enclose several <code>cells_*</code> () calls within a <code>list()</code> if we wish to link the footnote text to different types of locations (e.g., body cells, row group labels, the table title, etc.).

placement Where to affix footnote marks to the table content. Two options for this are "left" or "right", where the placement is to the absolute left or right of the cell content. By default, however, this is set to "auto" whereby **gt** will choose a preferred left-or-right placement depending on the alignment of the cell content.

Details

The formatting of the footnotes can be controlled through the use of various parameters in the `tab_options()` function:

- `footnotes.multiline`: a setting that determines whether footnotes each start on a new line or are combined into a single block.
- `footnotes.sep`: allows for a choice of the separator between consecutive footnotes in the table footer. By default, this is set to a single space character.
- `footnotes.marks`: the set of sequential characters or numbers used to identify the footnotes.
- `footnotes.font.size`: the size of the font used in the footnote section.
- `footnotes.padding`: the amount of padding to apply between the footnote and source note sections in the table footer.

Value

An object of class `gt_tbl`.

Examples

Use `sza` to create a **gt** table. Color the `sza` column using the `data_color()` function, then, use `tab_footnote()` to add a footnote to the `sza` column label (explaining what the color scale signifies).

```

sza %>%
  dplyr::filter(
    latitude == 20 &
    month == "jan" &
    !is.na(sza)
  ) %>%
  dplyr::select(-latitude, -month) %>%
  gt() %>%
  data_color(
    columns = sza,
    colors = scales::col_numeric(
      palette = c("white", "yellow", "navyblue"),
      domain = c(0, 90)
    )
  ) %>%
  tab_footnote(
    footnote = "Color indicates height of sun.",
    locations = cells_column_labels(
      columns = sza
    )
  )

```

```
)
)
```

Function ID

2-7

See Also

Other part creation/modification functions: [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_header

Add a table header

Description

We can add a table header to the **gt** table with a title and even a subtitle. A table header is an optional table part that is positioned above the column labels. We have the flexibility to use Markdown formatting for the header's title and subtitle. Furthermore, if the table is intended for HTML output, we can use HTML in either of the title or subtitle.

Usage

```
tab_header(data, title, subtitle = NULL, preheader = NULL)
```

Arguments

data	A table object that is created using the gt() function.
title, subtitle	Text to be used in the table title and, optionally, for the table subtitle. We can elect to use the md() and html() helper functions to style the text as Markdown or to retain HTML elements in the text.
preheader	Optional preheader content that is rendered above the table. Can be supplied as a vector of text.

Value

An object of class `gt_tbl`.

Examples

Use `gtcars` to create a `gt` table. Add a header part with the `tab_header()` function so that we get a title and a subtitle for the table.

```
gtcars %>%
  dplyr::select(mfr, model, msrp) %>%
  dplyr::slice(1:5) %>%
  gt() %>%
  tab_header(
    title = md("Data listing from *gtcars*"),
    subtitle = md("`gtcars` is an R dataset")
  )
```

Function ID

2-1

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_options

Modify the table output options

Description

Modify the options available in a table. These options are named by the components, the subcomponents, and the element that can be adjusted.

Usage

```
tab_options(
  data,
  container.width = NULL,
  container.height = NULL,
  container.overflow.x = NULL,
  container.overflow.y = NULL,
  table.width = NULL,
  table.layout = NULL,
  table.align = NULL,
  table.margin.left = NULL,
  table.margin.right = NULL,
  table.background.color = NULL,
  table.additional_css = NULL,
  table.font.names = NULL,
```

```
table.font.size = NULL,  
table.font.weight = NULL,  
table.font.style = NULL,  
table.font.color = NULL,  
table.font.color.light = NULL,  
table.border.top.style = NULL,  
table.border.top.width = NULL,  
table.border.top.color = NULL,  
table.border.right.style = NULL,  
table.border.right.width = NULL,  
table.border.right.color = NULL,  
table.border.bottom.style = NULL,  
table.border.bottom.width = NULL,  
table.border.bottom.color = NULL,  
table.border.left.style = NULL,  
table.border.left.width = NULL,  
table.border.left.color = NULL,  
heading.background.color = NULL,  
heading.align = NULL,  
heading.title.font.size = NULL,  
heading.title.font.weight = NULL,  
heading.subtitle.font.size = NULL,  
heading.subtitle.font.weight = NULL,  
heading.padding = NULL,  
heading.padding.horizontal = NULL,  
heading.border.bottom.style = NULL,  
heading.border.bottom.width = NULL,  
heading.border.bottom.color = NULL,  
heading.border.lr.style = NULL,  
heading.border.lr.width = NULL,  
heading.border.lr.color = NULL,  
column_labels.background.color = NULL,  
column_labels.font.size = NULL,  
column_labels.font.weight = NULL,  
column_labels.text_transform = NULL,  
column_labels.padding = NULL,  
column_labels.padding.horizontal = NULL,  
column_labels.vlines.style = NULL,  
column_labels.vlines.width = NULL,  
column_labels.vlines.color = NULL,  
column_labels.border.top.style = NULL,  
column_labels.border.top.width = NULL,  
column_labels.border.top.color = NULL,  
column_labels.border.bottom.style = NULL,  
column_labels.border.bottom.width = NULL,  
column_labels.border.bottom.color = NULL,  
column_labels.border.lr.style = NULL,  
column_labels.border.lr.width = NULL,
```

```
column_labels.border.lr.color = NULL,  
column_labels.hidden = NULL,  
row_group.background.color = NULL,  
row_group.font.size = NULL,  
row_group.font.weight = NULL,  
row_group.text_transform = NULL,  
row_group.padding = NULL,  
row_group.padding.horizontal = NULL,  
row_group.border.top.style = NULL,  
row_group.border.top.width = NULL,  
row_group.border.top.color = NULL,  
row_group.border.bottom.style = NULL,  
row_group.border.bottom.width = NULL,  
row_group.border.bottom.color = NULL,  
row_group.border.left.style = NULL,  
row_group.border.left.width = NULL,  
row_group.border.left.color = NULL,  
row_group.border.right.style = NULL,  
row_group.border.right.width = NULL,  
row_group.border.right.color = NULL,  
row_group.default_label = NULL,  
row_group.as_column = NULL,  
table_body.hlines.style = NULL,  
table_body.hlines.width = NULL,  
table_body.hlines.color = NULL,  
table_body.vlines.style = NULL,  
table_body.vlines.width = NULL,  
table_body.vlines.color = NULL,  
table_body.border.top.style = NULL,  
table_body.border.top.width = NULL,  
table_body.border.top.color = NULL,  
table_body.border.bottom.style = NULL,  
table_body.border.bottom.width = NULL,  
table_body.border.bottom.color = NULL,  
stub.background.color = NULL,  
stub.font.size = NULL,  
stub.font.weight = NULL,  
stub.text_transform = NULL,  
stub.border.style = NULL,  
stub.border.width = NULL,  
stub.border.color = NULL,  
stub.indent_length = NULL,  
stub_row_group.font.size = NULL,  
stub_row_group.font.weight = NULL,  
stub_row_group.text_transform = NULL,  
stub_row_group.border.style = NULL,  
stub_row_group.border.width = NULL,  
stub_row_group.border.color = NULL,
```



```
data_row.padding = NULL,
data_row.padding.horizontal = NULL,
summary_row.background.color = NULL,
summary_row.text_transform = NULL,
summary_row.padding = NULL,
summary_row.padding.horizontal = NULL,
summary_row.border.style = NULL,
summary_row.border.width = NULL,
summary_row.border.color = NULL,
grand_summary_row.background.color = NULL,
grand_summary_row.text_transform = NULL,
grand_summary_row.padding = NULL,
grand_summary_row.padding.horizontal = NULL,
grand_summary_row.border.style = NULL,
grand_summary_row.border.width = NULL,
grand_summary_row.border.color = NULL,
footnotes.background.color = NULL,
footnotes.font.size = NULL,
footnotes.padding = NULL,
footnotes.padding.horizontal = NULL,
footnotes.border.bottom.style = NULL,
footnotes.border.bottom.width = NULL,
footnotes.border.bottom.color = NULL,
footnotes.border.lr.style = NULL,
footnotes.border.lr.width = NULL,
footnotes.border.lr.color = NULL,
footnotes.marks = NULL,
footnotes.multiline = NULL,
footnotes.sep = NULL,
source_notes.background.color = NULL,
source_notes.font.size = NULL,
source_notes.padding = NULL,
source_notes.padding.horizontal = NULL,
source_notes.border.bottom.style = NULL,
source_notes.border.bottom.width = NULL,
source_notes.border.bottom.color = NULL,
source_notes.border.lr.style = NULL,
source_notes.border.lr.width = NULL,
source_notes.border.lr.color = NULL,
source_notes.multiline = NULL,
source_notes.sep = NULL,
row.stripping.background_color = NULL,
row.stripping.include_stub = NULL,
row.stripping.include_table_body = NULL,
page.orientation = NULL,
page.numbering = NULL,
page.header.use_tbl_headings = NULL,
page.footer.use_tbl_notes = NULL,
```

```

page.width = NULL,
page.height = NULL,
page.margin.left = NULL,
page.margin.right = NULL,
page.margin.top = NULL,
page.margin.bottom = NULL,
page.header.height = NULL,
page.footer.height = NULL
)

```

Arguments

`data` A table object that is created using the `gt()` function.

`container.width`, `container.height`

The width and height of the table's container. Can be specified as a single-length character with units of pixels or as a percentage. If provided as a single-length numeric vector, it is assumed that the value is given in units of pixels. The `px()` and `pct()` helper functions can also be used to pass in numeric values and obtain values as pixel or percent units.

`container.overflow.x`, `container.overflow.y`

Options to enable scrolling in the horizontal and vertical directions when the table content overflows the container dimensions. Using TRUE (the default for both) means that horizontal or vertical scrolling is enabled to view the entire table in those directions. With FALSE, the table may be clipped if the table width or height exceeds the `container.width` or `container.height`.

`table.width` The width of the table. Can be specified as a single-length character with units of pixels or as a percentage. If provided as a single-length numeric vector, it is assumed that the value is given in units of pixels. The `px()` and `pct()` helper functions can also be used to pass in numeric values and obtain values as pixel or percent units.

`table.layout` The value for the table-layout CSS style in the HTML output context. By default, this is "fixed" but another valid option is "auto".

`table.align` The horizontal alignment of the table in its container. By default, this is "center". Other options are "left" and "right". This will automatically set `table.margin.left` and `table.margin.right` to the appropriate values.

`table.margin.left`, `table.margin.right`

The size of the margins on the left and right of the table within the container. Can be specified as a single-length character with units of pixels or as a percentage. If provided as a single-length numeric vector, it is assumed that the value is given in units of pixels. The `px()` and `pct()` helper functions can also be used to pass in numeric values and obtain values as pixel or percent units. Using `table.margin.left` or `table.margin.right` will overwrite any values set by `table.align`.

`table.background.color`, `heading.background.color`, `column_labels.background.color`, `row_group.background`

Background colors for the parent element table and the following child elements: `heading`, `column_labels`, `row_group`, `stub`, `summary_row`, `grand_summary_row`, `footnotes`, and `source_notes`. A color name or a hexadecimal color code should be provided.

`table.additional_css`

This option can be used to supply an additional block of CSS rules to be applied after the automatically generated table CSS.

`table.font.names`

The names of the fonts used for the table. This is a vector of several font names. If the first font isn't available, then the next font is tried (and so on).

`table.font.size, heading.title.font.size, heading.subtitle.font.size, column_labels.font.size, row_group`

The font sizes for the parent text element table and the following child elements: `heading.title`, `heading.subtitle`, `column_labels`, `row_group`, `footnotes`, and `source_notes`. Can be specified as a single-length character vector with units of pixels (e.g., 12px) or as a percentage (e.g., 80%). If provided as a single-length numeric vector, it is assumed that the value is given in units of pixels. The `px()` and `pct()` helper functions can also be used to pass in numeric values and obtain values as pixel or percentage units.

`table.font.weight, heading.title.font.weight, heading.subtitle.font.weight, column_labels.font.weight`

The font weights of the table, `heading.title`, `heading.subtitle`, `column_labels`, `row_group`, and stub text elements. Can be a text-based keyword such as "normal", "bold", "lighter", "bolder", or a numeric value between 1 and 1000, inclusive. Note that only variable fonts may support the numeric mapping of weight.

`table.font.style`

The font style for the table. Can be one of either "normal", "italic", or "oblique".

`table.font.color, table.font.color.light`

The text color used throughout the table. There are two variants: `table.font.color` is for text overlaid on lighter background colors, and `table.font.color.light` is automatically used when text needs to be overlaid on darker background colors. A color name or a hexadecimal color code should be provided.

`table.border.top.style, table.border.top.width, table.border.top.color, table.border.right.style, table`

The style, width, and color properties of the table's absolute top and absolute bottom borders.

`heading.align` Controls the horizontal alignment of the heading title and subtitle. We can either use "center", "left", or "right".

`heading.padding, column_labels.padding, data_row.padding, row_group.padding, summary_row.padding, grand`

The amount of vertical padding to incorporate in the heading (title and subtitle), the `column_labels` (this includes the column spanners), the row group labels (`row_group.padding`), in the body/stub rows (`data_row.padding`), in summary rows (`summary_row.padding` or `grand_summary_row.padding`), or in the footnotes and source notes (`footnotes.padding` and `source_notes.padding`).

`heading.padding.horizontal, column_labels.padding.horizontal, data_row.padding.horizontal, row_group`

The amount of horizontal padding to incorporate in the heading (title and subtitle), the `column_labels` (this includes the column spanners), the row group labels (`row_group.padding.horizontal`), in the body/stub rows (`data_row.padding`), in summary rows (`summary_row.padding.horizontal` or `grand_summary_row.padding.horizontal`) or in the footnotes and source notes (`footnotes.padding.horizontal` and `source_notes.padding.horizontal`).

`heading.border.bottom.style`, `heading.border.bottom.width`, `heading.border.bottom.color`
 The style, width, and color properties of the header's bottom border. This border shares space with that of the `column_labels` location. If the width of this border is larger, then it will be the visible border.

`heading.border.lr.style`, `heading.border.lr.width`, `heading.border.lr.color`
 The style, width, and color properties for the left and right borders of the heading location.

`column_labels.text_transform`, `row_group.text_transform`, `stub.text_transform`, `summary_row.text_transform`
 Options to apply text transformations to the `column_labels`, `row_group`, `stub`, `summary_row`, and `grand_summary_row` text elements. Either of the "uppercase", "lowercase", or "capitalize" keywords can be used.

`column_labels.vlines.style`, `column_labels.vlines.width`, `column_labels.vlines.color`
 The style, width, and color properties for all vertical lines ('vlines') of the the `column_labels`.

`column_labels.border.top.style`, `column_labels.border.top.width`, `column_labels.border.top.color`
 The style, width, and color properties for the top border of the `column_labels` location. This border shares space with that of the heading location. If the width of this border is larger, then it will be the visible border.

`column_labels.border.bottom.style`, `column_labels.border.bottom.width`, `column_labels.border.bottom.color`
 The style, width, and color properties for the bottom border of the `column_labels` location.

`column_labels.border.lr.style`, `column_labels.border.lr.width`, `column_labels.border.lr.color`
 The style, width, and color properties for the left and right borders of the `column_labels` location.

`column_labels.hidden`
 An option to hide the column labels. If providing TRUE then the entire `column_labels` location won't be seen and the table header (if present) will collapse downward.

`row_group.border.top.style`, `row_group.border.top.width`, `row_group.border.top.color`, `row_group.border.bottom.style`, `row_group.border.bottom.width`, `row_group.border.bottom.color`, `row_group.border.lr.style`, `row_group.border.lr.width`, `row_group.border.lr.color`
 The style, width, and color properties for all top, bottom, left, and right borders of the `row_group` location.

`row_group.default_label`
 An option to set a default row group label for any rows not formally placed in a row group named by `group` in any call of `tab_row_group()`. If this is set as `NA_character` and there are rows that haven't been placed into a row group (where one or more row groups already exist), those rows will be automatically placed into a row group without a label.

`row_group.as_column`
 How should row groups be structured? By default, they are separate rows that lie above the each of the groups. Setting this to TRUE will structure row group labels are columns to the far left of the table.

`table_body.hlines.style`, `table_body.hlines.width`, `table_body.hlines.color`, `table_body.vlines.style`, `table_body.vlines.width`, `table_body.vlines.color`
 The style, width, and color properties for all horizontal lines ('hlines') and vertical lines ('vlines') in the `table_body`.

`table_body.border.top.style`, `table_body.border.top.width`, `table_body.border.top.color`, `table_body.border.bottom.style`, `table_body.border.bottom.width`, `table_body.border.bottom.color`
 The style, width, and color properties for all top and bottom borders of the `table_body` location.

`stub.border.style`, `stub.border.width`, `stub.border.color`
 The style, width, and color properties for the vertical border of the table stub.

`stub.indent_length`

The width of each indentation level. By default this is "5px".

`stub_row_group.font.size`, `stub_row_group.font.weight`, `stub_row_group.text_transform`, `stub_row_group.b`

Options for the row group column in the stub (made possible when using `row_group.as_column = TRUE`). The defaults for these options mirror that of the `stub.*` variants (except for `stub_row_group.border.width`, which is "1px" instead of "2px").

`summary_row.border.style`, `summary_row.border.width`, `summary_row.border.color`

The style, width, and color properties for all horizontal borders of the `summary_row` location.

`grand_summary_row.border.style`, `grand_summary_row.border.width`, `grand_summary_row.border.color`

The style, width, and color properties for the top borders of the `grand_summary_row` location.

`footnotes.border.bottom.style`, `footnotes.border.bottom.width`, `footnotes.border.bottom.color`

The style, width, and color properties for the bottom border of the `footnotes` location.

`footnotes.border.lr.style`, `footnotes.border.lr.width`, `footnotes.border.lr.color`

The style, width, and color properties for the left and right borders of the `footnotes` location.

`footnotes.marks`

The set of sequential marks used to reference and identify each of the footnotes (same input as the `opt_footnote_marks()` function. We can supply a vector that represents the series of footnote marks. This vector is recycled when its usage goes beyond the length of the set. At each cycle, the marks are simply combined (e.g., * -> ** -> ***). The option exists for providing keywords for certain types of footnote marks. The keyword "numbers" (the default, indicating that we want to use numeric marks). We can use lowercase "letters" or uppercase "LETTERS". There is the option for using a traditional symbol set where "standard" provides four symbols, and, "extended" adds two more symbols, making six.

`footnotes.multiline`, `source_notes.multiline`

An option to either put footnotes and source notes in separate lines (the default, or TRUE) or render them as a continuous line of text with `footnotes.sep` providing the separator (by default " ") between notes.

`footnotes.sep`, `source_notes.sep`

The separating characters between adjacent footnotes and source notes in their respective footer sections when rendered as a continuous line of text (when `footnotes.multiline == FALSE`). The default value is a single space character (" ").

`source_notes.border.bottom.style`, `source_notes.border.bottom.width`, `source_notes.border.bottom.color`

The style, width, and color properties for the bottom border of the `source_notes` location.

`source_notes.border.lr.style`, `source_notes.border.lr.width`, `source_notes.border.lr.color`

The style, width, and color properties for the left and right borders of the `source_notes` location.

`row.striping.background_color`

The background color for striped table body rows. A color name or a hexadecimal color code should be provided.

<code>row.stripping.include_stub</code>	An option for whether to include the stub when striping rows.
<code>row.stripping.include_table_body</code>	An option for whether to include the table body when striping rows.
<code>page.orientation</code>	For RTF output, this provides an two options for page orientation: "portrait" (the default) and "landscape".
<code>page.numbering</code>	Within RTF output, should page numbering be displayed? By default, this is set to FALSE but if TRUE then page numbering text will be added to the document header.
<code>page.header.use_tbl_headings</code>	If TRUE then RTF output tables will migrate all table headings (including the table title and all column labels) to the page header. This page header content will repeat across pages. By default, this is FALSE.
<code>page.footer.use_tbl_notes</code>	If TRUE then RTF output tables will migrate all table footer content (this includes footnotes and source notes) to the page footer. This page footer content will repeat across pages. By default, this is FALSE.
<code>page.width, page.height</code>	The page width and height in the standard portrait orientation. This is for RTF table output and the default values (in inches) are 8.5in and 11.0in.
<code>page.margin.left, page.margin.right, page.margin.top, page.margin.bottom</code>	For RTF table output, these options correspond to the left, right, top, and bottom page margins. The default values for each of these is 1.0in.
<code>page.header.height, page.footer.height</code>	The heights of the page header and footer for RTF table outputs. Default values for both are 0.5in.

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table with all the main parts added. We can use this `gt` object going forward to demo some of what's available in the `tab_options()` function.

```
tab_1 <-
  exibble %>%
  dplyr::select(-c(fctr, date, time, datetime)) %>%
  gt(
    rowname_col = "row",
    groupname_col = "group"
  ) %>%
  tab_header(
    title = md("Data listing from exibble"),
    subtitle = md("`exibble` is an R dataset")
```

```

) %>%
fmt_number(columns = num) %>%
fmt_currency(columns = currency) %>%
tab_footnote(
  footnote = "Using commas for separators.",
  locations = cells_body(
    columns = num,
    rows = num > 1000
  )
) %>%
tab_footnote(
  footnote = "Using commas for separators.",
  locations = cells_body(
    columns = currency,
    rows = currency > 1000
  )
) %>%
tab_footnote(
  footnote = "Alphabetical fruit.",
  locations = cells_column_labels(columns = char)
)

```

tab_1

Modify the table width to be 100% (which spans the entire content width area).

```
tab_1 %>% tab_options(table.width = pct(100))
```

Modify the table's background color to be "lightcyan".

```
tab_1 %>% tab_options(table.background.color = "lightcyan")
```

Use letters as the marks for footnote references. Also, separate footnotes in the footer by spaces instead of newlines.

```
tab_1 %>%
  tab_options(
    footnotes.marks = letters,
    footnotes.multiline = FALSE
  )

```

Change the padding of data rows to 5 px.

```
tab_1 %>%
  tab_options(
    data_row.padding = px(5)
  )

```

Reduce the size of the title and the subtitle text.

```
tab_1 %>%
  tab_options(
    heading.title.font.size = "small",
    heading.subtitle.font.size = "small"
  )
```

Function ID

2-10

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_row_group	<i>Add a row group to a gt table</i>
---------------	--------------------------------------

Description

Create a row group with a collection of rows. This requires specification of the rows to be included, either by supplying row labels, row indices, or through use of a select helper function like [starts_with\(\)](#). To modify the order of row groups, use the [row_group_order\(\)](#) function.

To set a default row group label for any rows not formally placed in a row group, we can use a separate call to `tab_options(row_group.default_label = <label>)`. If this is not done and there are rows that haven't been placed into a row group (where one or more row groups already exist), those rows will be automatically placed into a row group without a label. To restore labels for row groups not explicitly assigned a group, `tab_options(row_group.default_label = "")` can be used.

Usage

```
tab_row_group(data, label, rows, id = label, others_label = NULL, group = NULL)
```

Arguments

data	A table object that is created using the gt() function.
label	The text to use for the row group label.
rows	The rows to be made components of the row group. Can either be a vector of row captions provided in c() , a vector of row indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , and everything() .

id	The ID for the row group. When accessing a row group through <code>cells_row_groups()</code> (when using <code>tab_style()</code> or <code>tab_footnote()</code>) the id value is used as the reference (and not the label). If an id is not explicitly provided here, it will be taken from the label value. It is advisable to set an explicit id value if you plan to access this cell in a later function call and the label text is complicated (e.g., contains markup, is lengthy, or both). Finally, when providing an id value you must ensure that it is unique across all ID values set for row groups (the function will stop if id isn't unique).
others_label	This argument is deprecated. Instead use <code>tab_options(row_group.default_label = <label>)</code> .
group	This argument is deprecated. Instead use label.

Value

An object of class `gt_tbl`.

Examples

Use `gtcars` to create a `gt` table and use `tab_row_group()` to add two row groups with the labels: numbered and NA. The row group with the NA label ends up being rendered without a label at all.

```
gtcars %>%
  dplyr::select(model, year, hp, trq) %>%
  dplyr::slice(1:8) %>%
  gt(rowname_col = "model") %>%
  tab_row_group(
    label = "numbered",
    rows = matches("^[0-9]")
  )
```

Use `gtcars` to create a `gt` table. Add two row groups with the labels `powerful` and `super powerful`. The distinction between the groups is whether `hp` is lesser or greater than `600` (governed by the expressions provided to the `rows` argument).

```
gtcars %>%
  dplyr::select(model, year, hp, trq) %>%
  dplyr::slice(1:8) %>%
  gt(rowname_col = "model") %>%
  tab_row_group(
    label = "powerful",
    rows = hp <= 600
  ) %>%
  tab_row_group(
    label = "super powerful",
    rows = hp > 600
  )
```

Function ID

2-4

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_source_note	<i>Add a source note citation</i>
-----------------	-----------------------------------

Description

Add a source note to the footer part of the **gt** table. A source note is useful for citing the data included in the table. Several can be added to the footer, simply use multiple calls of `tab_source_note()` and they will be inserted in the order provided. We can use Markdown formatting for the note, or, if the table is intended for HTML output, we can include HTML formatting.

Usage

```
tab_source_note(data, source_note)
```

Arguments

data	A table object that is created using the gt() function.
source_note	Text to be used in the source note. We can optionally use the md() and html() functions to style the text as Markdown or to retain HTML elements in the text.

Value

An object of class `gt_tbl`.

Examples

Use [gtcars](#) to create a **gt** table. Use `tab_source_note()` to add a source note to the table footer that cites the data source.

```
gtcars %>%
  dplyr::select(mfr, model, msrp) %>%
  dplyr::slice(1:5) %>%
  gt() %>%
  tab_source_note(source_note = "From edmunds.com")
```

Function ID

2-89

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_spanner	<i>Add a spanner column label</i>
-------------	-----------------------------------

Description

Set a spanner column label by mapping it to columns already in the table. This label is placed above one or more column labels, spanning the width of those columns and column labels.

Usage

```
tab_spanner(
  data,
  label,
  columns = NULL,
  spanners = NULL,
  level = NULL,
  id = label,
  gather = TRUE,
  replace = FALSE
)
```

Arguments

data	A table object that is created using the <code>gt()</code> function.
label	The text to use for the spanner column label.
columns	The columns to be components of the spanner heading.
spanners	The spanners that should be spanned over, should they already be defined.
level	An explicit level to which the spanner should be placed. If not provided, <code>gt</code> will choose the level based on the inputs provided within <code>columns</code> and <code>spanners</code> , placing the spanner label where it will fit. The first spanner level (right above the column labels) is 1.
id	The ID for the spanner column label. When accessing a spanner column label through <code>cells_column_spanners()</code> (when using <code>tab_style()</code> or <code>tab_footnote()</code>) the <code>id</code> value is used as the reference (and not the <code>label</code>). If an <code>id</code> is not explicitly provided here, it will be taken from the <code>label</code> value. It is advisable to set an explicit <code>id</code> value if you plan to access this cell in a later function call and the label text is complicated (e.g., contains markup, is lengthy, or both). Finally, when providing an <code>id</code> value you must ensure that it is unique across all ID values set for column spanner labels (the function will stop if <code>id</code> isn't unique).
gather	An option to move the specified columns such that they are unified under the spanner column label. Ordering of the moved-into-place columns will be preserved in all cases. By default, this is set to <code>TRUE</code> .
replace	Should new spanners be allowed to partially or fully replace existing spanners? (This is a possibility if setting spanners at an already populated level.) By default, this is set to <code>FALSE</code> and an error will occur if some replacement is attempted.

Value

An object of class `gt_tbl`.

Examples

Use `gtcars` to create a `gt` table. Use the `tab_spanner()` function to effectively group several columns related to car performance under a spanner column with the label "performance".

```
gtcars %>%
  dplyr::select(
    -mfr, -trim, bdy_style, drivetrain,
    -drivetrain, -trsmn, -ctry_origin
  ) %>%
  dplyr::slice(1:8) %>%
  gt(rowname_col = "model") %>%
  tab_spanner(
    label = "performance",
    columns = c(
      hp, hp_rpm, trq, trq_rpm,
      mpg_c, mpg_h
    )
  )
```

Function ID

2-2

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

<code>tab_spanner_delim</code>	<i>Create column labels and spanners via delimited names</i>
--------------------------------	--

Description

This function will split selected delimited column names such that the first components (LHS) are promoted to being spanner column labels, and the secondary components (RHS) will become the column labels. Please note that reference to individual columns must continue to be the column names from the input table data (which are unique by necessity).

Usage

```
tab_spanner_delim(  
  data,  
  delim,  
  columns = everything(),  
  split = c("last", "first")  
)
```

Arguments

<code>data</code>	A table object that is created using the <code>gt()</code> function.
<code>delim</code>	The delimiter to use to split an input column name. The delimiter supplied will be autoescaped for the internal splitting procedure. The first component of the split will become the spanner column label (and its ID value, used for styling or for the addition of footnotes in those locations) and the second component will be the column label.
<code>columns</code>	An optional vector of column names that this operation should be limited to. The default is to consider all columns in the table.
<code>split</code>	Should the delimiter splitting occur from the "last" instance of the <code>delim</code> character or from the "first"? By default, column name splitting begins at the last instance of the delimiter.

Details

If we look to the column names in the `iris` dataset as an example of how `tab_spanner_delim()` might be useful, we find the names `Sepal.Length`, `Sepal.Width`, `Petal.Length`, `Petal.Width`. From this naming system, it's easy to see that the `Sepal` and `Petal` can group together the repeated common `Length` and `Width` values. In your own datasets, we can avoid a lengthy relabeling with `cols_label()` if column names can be fashioned beforehand to contain both the spanner column label and the column label. An additional advantage is that the column names in the input table data remain unique even though there may eventually be repeated column labels in the rendered output table).

Value

An object of class `gt_tbl`.

Examples

Use `iris` to create a `gt` table and use the `tab_spanner_delim()` function to automatically generate column spanner labels. This splits any columns that are dot-separated between column spanner labels (first part) and column labels (second part).

```
iris %>%  
  dplyr::group_by(Species) %>%  
  dplyr::slice(1:4) %>%  
  gt() %>%  
  tab_spanner_delim(delim = ".")
```

Function ID

2-3

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_stubhead	<i>Add label text to the stubhead</i>
--------------	---------------------------------------

Description

Add a label to the stubhead of a **gt** table. The stubhead is the lone element that is positioned left of the column labels, and above the stub. If a stub does not exist, then there is no stubhead (so no change will be made when using this function in that case). We have the flexibility to use Markdown formatting for the stubhead label. Furthermore, if the table is intended for HTML output, we can use HTML for the stubhead label.

Usage

```
tab_stubhead(data, label)
```

Arguments

data	A table object that is created using the gt() function.
label	The text to be used as the stubhead label. We can optionally use the md() and html() functions to style the text as Markdown or to retain HTML elements in the text.

Value

An object of class `gt_tbl`.

Examples

Use [gtcars](#) to create a **gt** table. With `tab_stubhead()` we can add a stubhead label. This appears in the top-left and can be used to describe what is in the stub.

```
gtcars %>%
  dplyr::select(model, year, hp, trq) %>%
  dplyr::slice(1:5) %>%
  gt(rowname_col = "model") %>%
  tab_stubhead(label = "car")
```

Function ID

2-5

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_style\(\)](#)

tab_stub_indent	<i>Control indentation of row labels in the stub</i>
-----------------	--

Description

Indentation of row labels is an effective way for establishing structure in a table stub. The `tab_stub_indent()` function allows for fine control over row label indentation through either explicit definition of an indentation level, or, by way of an indentation directive using keywords.

Usage

```
tab_stub_indent(data, rows, indent = "increase")
```

Arguments

data	A table object that is created using the gt() function.
rows	The rows to consider for the indentation change. Can either be a vector of row captions provided in <code>c()</code> , a vector of row indices, or a helper function focused on selections. The select helper functions are: starts_with() , ends_with() , contains() , matches() , one_of() , and everything() .
indent	An indentation directive either as a keyword describing the indentation change or as an explicit integer value for directly setting the indentation level. The keyword "increase" (the default) will increase the indentation level by one; "decrease" will do the same in the reverse direction. The starting indentation level of 0 means no indentation and this values serves as a lower bound. The upper bound for indentation is at level 5.

Value

An object of class `gt_tbl`.

Examples

Use [pizzaplace](#) to create a `gt` table. With `tab_stub_indent()` we can add indentation to targeted row labels in the stub. Here we target the different pizza sizes and avoid selecting the repeating "All Sizes" row label.

```

dplyr::bind_rows(
  pizzaplace %>%
    dplyr::group_by(type, size) %>%
    dplyr::summarize(
      sold = n(),
      income = sum(price),
      .groups = "drop_last"
    ) %>%
    dplyr::summarize(
      sold = sum(sold),
      income = sum(income),
      size = "All Sizes",
      .groups = "drop"
    ),
  pizzaplace %>%
    dplyr::group_by(type, size) %>%
    dplyr::summarize(
      sold = n(),
      income = sum(price),
      .groups = "drop"
    )
) %>%
gt(rowname_col = "size", groupname_col = "type") %>%
tab_header(title = "Pizzas Sold in 2015") %>%
fmt_number(
  columns = sold,
  decimals = 0,
  use_seps = TRUE
) %>%
fmt_currency(
  columns = income,
  currency = "USD"
) %>%
tab_options(
  summary_row.background.color = "#ACEACE",
  row_group.background.color = "#FFEFDB",
  row_group.as_column = TRUE
) %>%
tab_stub_indent(
  rows = matches("^L|^M|^S|^XL|^XXL"),
  indent = 2
) %>%
tab_style(
  style = cell_fill(color = "gray95"),
  locations = list(
    cells_body(rows = matches("^All")),
    cells_stub(rows = matches("^All"))
  )
)

```


)

Function ID

2-6

See Also

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stubhead\(\)](#), [tab_style\(\)](#)

tab_style	<i>Add custom styles to one or more cells</i>
-----------	---

Description

With the `tab_style()` function we can target specific cells and apply styles to them. This is best done in conjunction with the helper functions [cell_text\(\)](#), [cell_fill\(\)](#), and [cell_borders\(\)](#). At present this function is focused on the application of styles for HTML output only (as such, other output formats will ignore all `tab_style()` calls). Using the aforementioned helper functions, here are some of the styles we can apply:

- the background color of the cell ([cell_fill\(\)](#): color)
- the cell's text color, font, and size ([cell_text\(\)](#): color, font, size)
- the text style ([cell_text\(\)](#): style), enabling the use of italics or oblique text.
- the text weight ([cell_text\(\)](#): weight), allowing the use of thin to bold text (the degree of choice is greater with variable fonts)
- the alignment and indentation of text ([cell_text\(\)](#): align and indent)
- the cell borders ([cell_borders\(\)](#))

Usage

```
tab_style(data, style, locations)
```

Arguments

data	A table object that is created using the gt() function.
style	a vector of styles to use. The cell_text() , cell_fill() , and cell_borders() helper functions can be used here to more easily generate valid styles. If using more than one helper function to define styles, all calls must be enclosed in a list() . Custom CSS declarations can be used for HTML output by including a css() -based statement as a list item.

locations the cell or set of cells to be associated with the style. Supplying any of the `cells_*`() helper functions is a useful way to target the location cells that are associated with the styling. These helper functions are: `cells_title()`, `cells_stubhead()`, `cells_column_spanners()`, `cells_column_labels()`, `cells_row_groups()`, `cells_stub()`, `cells_body()`, `cells_summary()`, `cells_grand_summary()`, `cells_stub_summary()`, `cells_stub_grand_summary()`, `cells_footnotes()`, and `cells_source_notes()`. Additionally, we can enclose several `cells_*`() calls within a `list()` if we wish to apply styling to different types of locations (e.g., body cells, row group labels, the table title, etc.).

Value

An object of class `gt_tbl`.

Examples

Use `exibble` to create a `gt` table. Add styles that are to be applied to data cells that satisfy a condition (using `tab_style()`).

```
exibble %>%
  dplyr::select(num, currency) %>%
  gt() %>%
  fmt_number(
    columns = c(num, currency),
    decimals = 1
  ) %>%
  tab_style(
    style = list(
      cell_fill(color = "lightcyan"),
      cell_text(weight = "bold")
    ),
    locations = cells_body(
      columns = num,
      rows = num >= 5000
    )
  ) %>%
  tab_style(
    style = list(
      cell_fill(color = "#F9E3D6"),
      cell_text(style = "italic")
    ),
    locations = cells_body(
      columns = currency,
      rows = currency < 100
    )
  )
)
```

Use `sp500` to create a `gt` table. Color entire rows of cells based on values in a particular column.

```

sp500 %>%
  dplyr::filter(
    date >= "2015-12-01" &
    date <= "2015-12-15"
  ) %>%
  dplyr::select(-c(adj_close, volume)) %>%
  gt() %>%
  tab_style(
    style = cell_fill(color = "lightgreen"),
    locations = cells_body(rows = close > open)
  ) %>%
  tab_style(
    style = list(
      cell_fill(color = "red"),
      cell_text(color = "white")
    ),
    locations = cells_body(rows = open > close)
  )

```

Use [exibble](#) to create a `gt` table. Replace missing values with the [sub_missing\(\)](#) function and then add styling to the `char` column with [cell_fill\(\)](#) and with a CSS style declaration.

```

exibble %>%
  dplyr::select(char, fctr) %>%
  gt() %>%
  sub_missing() %>%
  tab_style(
    style = list(
      cell_fill(color = "lightcyan"),
      "font-variant: small-caps;"
    ),
    locations = cells_body(columns = char)
  )

```

Function ID

2-9

See Also

[cell_text\(\)](#), [cell_fill\(\)](#), and [cell_borders\(\)](#) as helpers for defining custom styles and [cells_body\(\)](#) as one of many useful helper functions for targeting the locations to be styled.

Other part creation/modification functions: [tab_footnote\(\)](#), [tab_header\(\)](#), [tab_options\(\)](#), [tab_row_group\(\)](#), [tab_source_note\(\)](#), [tab_spanner_delim\(\)](#), [tab_spanner\(\)](#), [tab_stub_indent\(\)](#), [tab_stubhead\(\)](#)

test_image	<i>Generate a path to a test image</i>
------------	--

Description

Two test images are available within the **gt** package. Both contain the same imagery (sized at 200px by 200px) but one is a PNG file while the other is an SVG file. This function is most useful when paired with [local_image\(\)](#) since we test various sizes of the test image within that function.

Usage

```
test_image(type = c("png", "svg"))
```

Arguments

type The type of the image, which can either be png (the default) or svg.

Value

A character vector with a single path to an image file.

Function ID

8-4

See Also

Other image addition functions: [ggplot_image\(\)](#), [local_image\(\)](#), [web_image\(\)](#)

text_transform	<i>Perform targeted text transformation with a function</i>
----------------	---

Description

Perform targeted text transformation with a function

Usage

```
text_transform(data, locations, fn)
```

Arguments

data A table object that is created using the [gt\(\)](#) function.

locations The cell or set of cells to be associated with the text transformation. Only the [cells_body\(\)](#), [cells_stub\(\)](#), [cells_column_labels\(\)](#), and [cells_row_groups\(\)](#) helper functions can be used here. We can enclose several of these calls within a [list\(\)](#) if we wish to make the transformation happen at different locations.

fn The function to use for text transformation.

Value

An object of class `gt_tbl`.

Examples

Use [exibble](#) to create a `gt` table. transform the formatted text in the `num` column using a function supplied to `text_transform()` (via the `fn` argument). Note that the `x` in the `fn = function(x)` part is a formatted vector of column values from the `num` column.

```
exibble %>%
  dplyr::select(num, char, currency) %>%
  dplyr::slice(1:4) %>%
  gt() %>%
  fmt_number(columns = num) %>%
  fmt_currency(columns = currency) %>%
  text_transform(
    locations = cells_body(columns = num),
    fn = function(x) {
      paste0(
        x, " (",
        dplyr::case_when(
          x > 20 ~ "large",
          x <= 20 ~ "small"),
        ")"
      )
    }
  )
```

Function ID

3-20

See Also

Other data formatting functions: [data_color\(\)](#), [fmt_bytes\(\)](#), [fmt_currency\(\)](#), [fmt_datetime\(\)](#), [fmt_date\(\)](#), [fmt_duration\(\)](#), [fmt_engineering\(\)](#), [fmt_fraction\(\)](#), [fmt_integer\(\)](#), [fmt_markdown\(\)](#), [fmt_number\(\)](#), [fmt_partsper\(\)](#), [fmt_passthrough\(\)](#), [fmt_percent\(\)](#), [fmt_scientific\(\)](#), [fmt_time\(\)](#), [fmt\(\)](#), [sub_large_vals\(\)](#), [sub_missing\(\)](#), [sub_small_vals\(\)](#), [sub_zero\(\)](#)

 vec_fmt_bytes

Format a vector as values in terms of bytes

Description

With numeric values in a vector, we can transform each into byte values with human readable units. The `vec_fmt_bytes()` function allows for the formatting of byte sizes to either of two common representations: (1) with decimal units (powers of 1000, examples being "kB" and "MB"), and (2) with binary units (powers of 1024, examples being "KiB" and "MiB").

It is assumed the input numeric values represent the number of bytes and automatic truncation of values will occur. The numeric values will be scaled to be in the range of 1 to <1000 and then decorated with the correct unit symbol according to the standard chosen. For more control over the formatting of byte sizes, we can use the following options:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_bytes(
  x,
  standard = c("decimal", "binary"),
  decimals = 1,
  n_sigfig = NULL,
  drop_trailing_zeros = TRUE,
  drop_trailing_dec_mark = TRUE,
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  incl_space = TRUE,
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
standard	The way to express large byte sizes.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 1.
n_sigfig	A option to format numbers to <i>n</i> significant figures. By default, this is NULL and thus number values will be formatted according to the number of decimal places set via decimals. If opting to format according to the rules of significant figures, n_sigfig must be a number greater than or equal to 1. Any values passed to the decimals and drop_trailing_zeros arguments will be ignored.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).

drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = ", " with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "." with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive numbers (effectively showing a sign for all numbers except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.
incl_space	An option for whether to include a space between the value and the units. The default of TRUE uses a space character for separation.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the info_locales() function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(3.24294e14, 8, 1362902, -59027, NA)
```

Using `vec_fmt_bytes()` with the default options will create a character vector with values in bytes. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_bytes(num_vals)
```

```
#> [1] "324.3 TB" "8 B" "1.4 MB" "-59 kB" "NA"
```

We can change the number of decimal places with the `decimals` option:

```
vec_fmt_bytes(num_vals, decimals = 2)

#> [1] "324.29 TB" "8 B" "1.36 MB" "-59.03 kB" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and `gt` will handle any locale-specific formatting options:

```
vec_fmt_bytes(num_vals, locale = "fi")

#> [1] "324,3 TB" "8 B" "1,4 MB" "-59 kB" "NA"
```

Should you need to have positive and negative signs on each of the output values, use `force_sign = TRUE`:

```
vec_fmt_bytes(num_vals, force_sign = TRUE)

#> [1] "+324.3 TB" "+8 B" "+1.4 MB" "-59 kB" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_bytes(num_vals, pattern = "[{x}]")

#> [1] "[324.3 TB]" "[8 B]" "[1.4 MB]" "[-59 kB]" "NA"
```

Function ID

14-9

See Also

Other vector formatting functions: [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_currency	<i>Format a vector as currency values</i>
------------------	---

Description

With numeric values in a vector, we can perform currency-based formatting. This function supports both automatic formatting with a three-letter or numeric currency code. We can also specify a custom currency that is formatted according to the output context with the `currency()` helper function. Numeric formatting facilitated through the use of a locale ID. We have fine control over the conversion from numeric values to currency values, where we could take advantage of the following options:

- the currency: providing a currency code or common currency name will procure the correct currency symbol and number of currency subunits; we could also use the `currency()` helper function to specify a custom currency
- currency symbol placement: the currency symbol can be placed before or after the values
- decimals/subunits: choice of the number of decimal places, and a choice of the decimal symbol, and an option on whether to include or exclude the currency subunits (decimal portion)
- negative values: choice of a negative sign or parentheses for values less than zero
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted currency values
- locale-based formatting: providing a locale ID will result in currency formatting specific to the chosen locale

We can use the `info_currencies()` function for a useful reference on all of the possible inputs to the currency argument.

Usage

```
vec_fmt_currency(  
  x,  
  currency = "USD",  
  use_subunits = TRUE,  
  decimals = NULL,  
  drop_trailing_dec_mark = TRUE,  
  use_seps = TRUE,  
  accounting = FALSE,  
  scale_by = 1,  
  suffixing = FALSE,  
  pattern = "{x}",  
  sep_mark = ",",
```

```

dec_mark = ".",
force_sign = FALSE,
placement = "left",
incl_space = FALSE,
locale = NULL,
output = c("auto", "plain", "html", "latex", "rtf", "word")
)

```

Arguments

x	A numeric vector.
currency	The currency to use for the numeric value. This input can be supplied as a 3-letter currency code (e.g., "USD" for U.S. Dollars, "EUR" for the Euro currency). Use info_currencies() to get an information table with all of the valid currency codes and examples of each. Alternatively, we can provide a common currency name (e.g., "dollar", "pound", "yen", etc.) to simplify the process. Use info_currencies() with the type == "symbol" option to view an information table with all of the supported currency symbol names along with examples. We can also use the currency() helper function to specify a custom currency, where the string could vary across output contexts. For example, using <code>currency(html = "&fnof; ", default = "f")</code> would give us a suitable glyph for the Dutch guilder in an HTML output table, and it would simply be the letter "f" in all other output contexts). Please note that decimals will default to 2 when using the currency() helper function. If nothing is provided to currency then "USD" (U.S. dollars) will be used.
use_subunits	An option for whether the subunits portion of a currency value should be displayed. By default, this is TRUE.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using accounting = TRUE will put negative values in parentheses.
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the suffixing options (i.e., where suffixing is not set to FALSE).
suffixing	An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 1.92M). This option can accept a logical value, where FALSE (the

default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., `c("k", "Ml", "Bn", "Tr")`).

Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g. `c(NA, "M", "B", "T")` won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g., with `c("K", "M", NA, "T")`, all numbers in the range of millions and billions will be in terms of millions).

Any use of suffixing (where it is not set expressly as FALSE) means that any value provided to `scale_by` will be ignored.

pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with <code>accounting = TRUE</code> .
placement	The placement of the currency symbol. This can be either be left (the default) or right.
incl_space	An option for whether to include a space between the value and the currency symbol. The default is to not introduce a space character.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in <code>sep_mark</code> and <code>dec_mark</code> . We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(5.2, 8.65, 0, -5.3, NA)
```

Using `vec_fmt_currency()` with the default options will create a character vector where the numeric values have been transformed to U.S. Dollars ("USD"). Furthermore, the rendering context will be autodetected unless specified in the `output` argument (here, it is of the "plain" output type).

```
vec_fmt_currency(num_vals)

#> [1] "$5.20" "$8.65" "$0.00" "$-5.30" "NA"
```

We can supply a currency code to the `currency` argument. Let's use British Pounds by using `currency = "GBP"`:

```
vec_fmt_currency(num_vals, currency = "GBP")

#> [1] "GBP5.20" "GBP8.65" "GBP0.00" "GBP-5.30" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and let `gt` handle all locale-specific formatting options:

```
vec_fmt_currency(num_vals, currency = "EUR", locale = "fr")

#> [1] "EUR5,20" "EUR8,65" "EUR0,00" "EUR-5,30" "NA"
```

There are many options for formatting values. Perhaps you need to have explicit positive and negative signs? Use `force_sign = TRUE` for that.

```
vec_fmt_currency(num_vals, force_sign = TRUE)

#> [1] "+$5.20" "+$8.65" "$0.00" "$-5.30" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_currency(num_vals, pattern = "`{x}`")

#> [1] "`$5.20`" "`$8.65`" "`$0.00`" "`-$5.30`" "NA"
```

Function ID

14-8

See Also

Other vector formatting functions: `vec_fmt_bytes()`, `vec_fmt_datetime()`, `vec_fmt_date()`, `vec_fmt_duration()`, `vec_fmt_engineering()`, `vec_fmt_fraction()`, `vec_fmt_integer()`, `vec_fmt_markdown()`, `vec_fmt_number()`, `vec_fmt_partsper()`, `vec_fmt_percent()`, `vec_fmt_scientific()`, `vec_fmt_time()`

vec_fmt_date	<i>Format a vector as date values</i>
--------------	---------------------------------------

Description

Format vector values to date values using one of fourteen presets. Input can be in the form of POSIXt (i.e., date-times), the Date type, or character (must be in the ISO 8601 form of YYYY-MM-DD HH:MM:SS or YYYY-MM-DD).

We can simply apply a preset date style to format the dates. The following date styles are available for use (all using the input date of 2000-02-29 in the example output dates):

1. "iso": 2000-02-29
2. "wday_month_day_year": Tuesday, February 29, 2000
3. "wd_m_day_year": Tue, Feb 29, 2000
4. "wday_day_month_year": Tuesday 29 February 2000
5. "month_day_year": February 29, 2000
6. "m_day_year": Feb 29, 2000
7. "day_m_year": 29 Feb 2000
8. "day_month_year": 29 February 2000
9. "day_month": 29 February
10. "year": 2000
11. "month": February
12. "day": 29
13. "year.mn.day": 2000/02/29
14. "y.mn.day": 00/02/29

We can use the [info_date_style\(\)](#) function for a useful reference on all of the possible inputs to date_style.

Usage

```
vec_fmt_date(  
  x,  
  date_style = 2,  
  pattern = "{x}",  
  output = c("auto", "plain", "html", "latex", "rtf", "word")  
)
```

Arguments

x	A numeric vector.
date_style	The date style to use. Supply a number (from 1 to 14) that corresponds to the preferred date style, or, provide a named date style ("wday_month_day_year", "m_day_year", "year.mn.day", etc.). Use <code>info_date_style()</code> to see the different numbered and named date presets.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a character vector of dates in the ISO-8601 format for the next few examples:

```
str_vals <- c("2022-06-13", "2019-01-25", "2015-03-23", NA)
```

Using `vec_fmt_date()` with the default options will create a character vector of formatted dates. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_date(str_vals)
```

```
#> [1] "Monday, June 13, 2022" "Friday, January 25, 2019"
#> [3] "Monday, March 23, 2015" NA
```

We can change the formatting style by choosing a number from 1 to 14:

```
vec_fmt_date(str_vals, date_style = 6)
```

```
#> [1] "Jun 13, 2022" "Jan 25, 2019" "Mar 23, 2015" NA
```

We can always use `info_date_style()` to call up an info table that serves as a handy reference to all of the date styles.

As a last example, one can wrap the date values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_date(str_vals, pattern = "Date: {x}")
```

```
#> [1] "Date: Monday, June 13, 2022" "Date: Friday, January 25, 2019"
#> [3] "Date: Monday, March 23, 2015" NA
```

Function ID

14-10

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_datetime *Format a vector as date-time values*

Description

Format vector values to date-time values using one of fourteen presets for the date component and one of five presets for the time component. Input can be in the form of POSIXct (i.e., date-times), the Date type, or character (must be in the ISO 8601 form of YYYY-MM-DD HH:MM:SS or YYYY-MM-DD).

Once the appropriate data cells are targeted with columns (and, optionally, rows), we can simply apply preset date and time styles to format the date-time values. The following date styles are available for formatting of the date portion (all using the input date of 2000-02-29 in the example output dates):

1. "iso": 2000-02-29
2. "wday_month_day_year": Tuesday, February 29, 2000
3. "wd_m_day_year": Tue, Feb 29, 2000
4. "wday_day_month_year": Tuesday 29 February 2000
5. "month_day_year": February 29, 2000
6. "m_day_year": Feb 29, 2000
7. "day_m_year": 29 Feb 2000
8. "day_month_year": 29 February 2000
9. "day_month": 29 February
10. "year": 2000
11. "month": February
12. "day": 29
13. "year.mn.day": 2000/02/29
14. "y.mn.day": 00/02/29

The following time styles are available for formatting of the time portion (all using the input time of 14:35:00 in the example output times):

1. "hms": 14:35:00
2. "hm": 14:35
3. "hms_p": 2:35:00 PM

4. "hm_p": 2:35 PM
5. "h_p": 2 PM

We can use the `info_date_style()` and `info_time_style()` functions as useful references for all of the possible inputs to `date_style` and `time_style`.

Usage

```
vec_fmt_datetime(
  x,
  date_style = 2,
  time_style = 2,
  sep = " ",
  format = NULL,
  tz = NULL,
  pattern = "{x}",
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

<code>x</code>	A numeric vector.
<code>date_style</code>	The date style to use. Supply a number (from 1 to 14) that corresponds to the preferred date style, or, provide a named date style ("wday_month_day_year", "m_day_year", "year.mn.day", etc.). Use <code>info_date_style()</code> to see the different numbered and named date presets.
<code>time_style</code>	The time style to use. Supply a number (from 1 to 5) that corresponds to the preferred time style, or, provide a named time style ("hms", "hms_p", "h_p", etc.). Use <code>info_time_style()</code> to see the different numbered and named time presets.
<code>sep</code>	The separator string to use between the date and time components. By default, this is a single space character (" "). Only used when not specifying a format code.
<code>format</code>	An optional format code used for generating custom dates/times. If used then the arguments governing preset styles (<code>date_style</code> and <code>time_style</code>) will be ignored in favor of formatting via the <code>format</code> string.
<code>tz</code>	The time zone for printing dates/times (i.e., the output). The default of <code>NULL</code> will preserve the time zone of the input data in the output. If providing a time zone, it must be one that is recognized by the user's operating system (a vector of all valid <code>tz</code> values can be produced with <code>OlsonNames()</code>).
<code>pattern</code>	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
<code>output</code>	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Date and Time Formats

Using format to create custom time formats isn't so hard once we know about all of the different format codes. The formats are all indicated with a leading % and literal characters are any of those without the leading %. We'll use the date and time "2015-06-08 23:05:37.48" for all of the examples here.

First off, let's look at a few format code combinations that work well together as format codes. This will give us an intuition on how these generally work.

- "%m/%d/%Y" -> "06/08/2015"
- "%A, %B %e, %Y" -> "Monday, June 8, 2015"
- "%b %e %a" -> "Jun 8 Mon"
- "%H:%M" -> "23:05"
- "%I:%M %p" -> "11:05 pm"
- "%A, %B %e, %Y at %I:%M %p" -> "Monday, June 8, 2015 at 11:05 pm"

Here are the individual format codes for date components:

- "%a" -> "Mon" (abbreviated day of week name)
- "%A" -> "Monday" (full day of week name)
- "%w" -> "1" (day of week number in 0..6; Sunday is 0)
- "%u" -> "1" (day of week number in 1..7; Monday is 1, Sunday 7)
- "%y" -> "15" (abbreviated year, using the final two digits)
- "%Y" -> "2015" (full year)
- "%b" -> "Jun" (abbreviated month name)
- "%B" -> "June" (full month name)
- "%m" -> "06" (month number)
- "%d" -> "08" (day number, zero-padded)
- "%e" -> "8" (day number without zero padding)

Here are the individual format codes for time components:

- "%H" -> "23" (24h hour)
- "%I" -> "11" (12h hour)
- "%M" -> "05" (minute)
- "%S" -> "37" (second)
- "%OS3" -> "37.480" (seconds with decimals; 3 decimal places here)
- "%p" -> "pm" (AM or PM indicator, may not appear in certain locales)

Here are some extra formats that you may find useful:

- "%j" -> "159" (day of the year, always zero-padded)
- "%W" -> "23" (week number for the year, always zero-padded)
- "%V" -> "24" (week number for the year, following ISO 8601 standard)
- "%C" -> "20" (the century number)
- "%z" -> "+0000" (signed time zone offset, here using UTC)
- "%F" -> "2015-06-08" (the date in the ISO 8601 date format)
- "%%" -> "%" (the literal "%" character, in case you need it)

Examples

Let's create a character vector of datetime values in the ISO-8601 format for the next few examples:

```
str_vals <- c("2022-06-13 18:36", "2019-01-25 01:08", NA)
```

Using `vec_fmt_datetime()` with the default options will create a character vector of formatted datetime values. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_datetime(str_vals)
```

```
#> [1] "Monday, June 13, 2022 18:36"
#> [2] "Friday, January 25, 2019 01:08"
#> [3] NA
```

We can change the formatting style of the date and time portions separately with the `date_style` (values 1-14) and `time_style` (values 1-5) arguments. The `sep` option allows for a customized separator string between the date and time.

```
vec_fmt_datetime(
  str_vals,
  date_style = 2,
  time_style = 4,
  sep = " at "
)
```

```
#> [1] "Monday, June 13, 2022 at 6:36 PM"
#> [2] "Friday, January 25, 2019 at 1:08 AM"
#> [3] NA
```

We can always use `info_date_style()` or `info_time_style()` to call up info tables that serve as handy references to all of the date and time styles.

It's possible to supply our own time formatting pattern and have greater control over the final formatting (even including string literals as please):

```
vec_fmt_datetime(str_vals, format = "%A, %B %e, %Y at %I:%M %p")
```

```
#> [1] "Monday, June 13, 2022 at 06:36 PM"  
#> [2] "Friday, January 25, 2019 at 01:08 AM"  
#> [3] NA
```

As a last example, one can wrap the datetime values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_datetime(  
  str_vals,  
  date_style = 6,  
  time_style = 4,  
  sep = " at ",  
  pattern = "Date and Time: {x}"  
)  
  
#> [1] "Date and Time: Jun 13, 2022 at 6:36 PM"  
#> [2] "Date and Time: Jan 25, 2019 at 1:08 AM"  
#> [3] NA
```

Function ID

14-12

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_duration	<i>Format a vector of numeric or duration values as styled time duration strings</i>
------------------	--

Description

Format input values to time duration values whether those input values are numbers or of the `difftime` class. We can specify which time units any numeric input values have (as weeks, days, hours, minutes, or seconds) and the output can be customized with a duration style (corresponding to narrow, wide, colon-separated, and ISO forms) and a choice of output units ranging from weeks to seconds.

Usage

```
vec_fmt_duration(
  x,
  input_units = NULL,
  output_units = NULL,
  duration_style = c("narrow", "wide", "colon-sep", "iso"),
  trim_zero_units = TRUE,
  max_output_units = NULL,
  pattern = "{x}",
  use_seps = TRUE,
  sep_mark = ",",
  force_sign = FALSE,
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

<code>x</code>	A numeric vector.
<code>input_units</code>	If one or more selected columns contains numeric values, a keyword must be provided for <code>input_units</code> for gt to determine how those values are to be interpreted in terms of duration. The accepted units are: "seconds", "minutes", "hours", "days", and "weeks".
<code>output_units</code>	Controls the output time units. The default, <code>NULL</code> , means that gt will automatically choose time units based on the input duration value. To control which time units are to be considered for output (before trimming with <code>trim_zero_units</code>) we can specify a vector of one or more of the following keywords: "weeks", "days", "hours", "minutes", or "seconds".
<code>duration_style</code>	A choice of four formatting styles for the output duration values. With "narrow" (the default style), duration values will be formatted with single letter time-part units (e.g., 1.35 days will be styled as "1d 8h 24m"). With "wide", this example value will be expanded to "1 day 8 hours 24 minutes" after formatting. The "colon-sep" style will put days, hours, minutes, and seconds in the "[D]/[HH]:[MM]:[SS]" format. The "iso" style will produce a value that conforms to the ISO 8601 rules for duration values (e.g., 1.35 days will become "P1DT8H24M").
<code>trim_zero_units</code>	Provides methods to remove output time units that have zero values. By default this is <code>TRUE</code> and duration values that might otherwise be formatted as "0w 1d 0h 4m 19s" with <code>trim_zero_units = FALSE</code> are instead displayed as "1d 4m 19s". Aside from using <code>TRUE/FALSE</code> we could provide a vector of keywords for more precise control. These keywords are: (1) "leading", to omit all leading zero-value time units (e.g., "0w 1d" -> "1d"), (2) "trailing", to omit all trailing zero-value time units (e.g., "3d 5h 0s" -> "3d 5h"), and "internal", which removes all internal zero-value time units (e.g., "5d 0h 33m" -> "5d 33m").
<code>max_output_units</code>	If <code>output_units</code> is <code>NULL</code> , where the output time units are unspecified and left to

	gt to handle, a numeric value provided for <code>max_output_units</code> will be taken as the maximum number of time units to display in all output time duration values. By default, this is <code>NULL</code> and all possible time units will be displayed. This option has no effect when <code>duration_style = "colon-sep"</code> (only <code>output_units</code> can be used to customize that type of duration output).
<code>pattern</code>	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
<code>use_seps</code>	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is <code>TRUE</code> by default.
<code>sep_mark</code>	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ", "</code> with <code>1000</code> would result in a formatted value of <code>1,000</code>).
<code>force_sign</code>	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use <code>TRUE</code> for this option. The default is <code>FALSE</code> , where only negative value will display a minus sign.
<code>locale</code>	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include <code>"en_US"</code> for English (United States) and <code>"fr_FR"</code> for French (France). The use of a valid locale ID will override any values provided in <code>sep_mark</code> and <code>dec_mark</code> . We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
<code>output</code>	The output style of the resulting character vector. This can either be <code>"auto"</code> (the default), <code>"plain"</code> , <code>"html"</code> , <code>"latex"</code> , <code>"rtf"</code> , or <code>"word"</code> . In knitr rendering (i.e., Quarto or R Markdown), the <code>"auto"</code> option will choose the correct output value

Value

A character vector.

Output units for the colon-separated duration style

The colon-separated duration style (enabled when `duration_style = "colon-sep"`) is essentially a clock-based output format which uses the display logic of chronograph watch functionality. It will, by default, display duration values in the `(D/)HH:MM:SS` format. Any duration values greater than or equal to 24 hours will have the number of days prepended with an adjoining slash mark. While this output format is versatile, it can be changed somewhat with the `output_units` option. The following combinations of output units are permitted:

- `c("minutes", "seconds")` -> `MM:SS`
- `c("hours", "minutes")` -> `HH:MM`
- `c("hours", "minutes", "seconds")` -> `HH:MM:SS`
- `c("days", "hours", "minutes")` -> `(D/)HH:MM`

Any other specialized combinations will result in the default set being used, which is `c("days", "hours", "minutes", "seconds")`

Examples

Let's create a `difftime`-based vector for the next few examples:

```
difftimes <-
  difftime(
    lubridate::ymd("2017-01-15"),
    lubridate::ymd(c("2015-06-25", "2016-03-07", "2017-01-10"))
  )
```

Using `vec_fmt_duration()` with its defaults provides us with a succinct vector of formatted durations.

```
vec_fmt_duration(diftimes)
```

```
#> [1] "81w 3d" "44w 6d" "5d"
```

We can elect to use just only the time units of days to describe the duration values.

```
vec_fmt_duration(diftimes, output_units = "days")
```

```
#> [1] "570d" "314d" "5d"
```

We can also use numeric values in the input vector `vec_fmt_duration()`. Here's a numeric vector for use with examples:

```
num_vals <- c(3.235, 0.23, 0.005, NA)
```

The necessary thing with numeric values as an input is defining what time unit those values have.

```
vec_fmt_duration(num_vals, input_units = "days")
```

```
#> [1] "3d 5h 38m 23s" "5h 31m 12s" "7m 12s" "NA"
```

We can define a set of output time units that we want to see.

```
vec_fmt_duration(
  num_vals,
  input_units = "days",
  output_units = c("hours", "minutes")
)
```

```
#> [1] "77h 38m" "5h 31m" "7m" "NA"
```

There are many duration 'styles' to choose from. We could opt for the "wide" style.

```
vec_fmt_duration(  
  num_vals,  
  input_units = "days",  
  duration_style = "wide"  
)  
  
#> [1] "3 days 5 hours 38 minutes 23 seconds"  
#> [2] "5 hours 31 minutes 12 seconds"  
#> [3] "7 minutes 12 seconds"  
#> [4] "NA"
```

We can always perform locale-specific formatting with `vec_fmt_duration()`. Let's attempt the same type of duration formatting as before with the "nl" locale.

```
vec_fmt_duration(  
  num_vals,  
  input_units = "days",  
  duration_style = "wide",  
  locale = "nl"  
)  
  
#> [1] "3 dagen 5 uur 38 minuten 23 seconden"  
#> [2] "5 uur 31 minuten 12 seconden"  
#> [3] "7 minuten 12 seconden"  
#> [4] "NA"
```

Function ID

14-13

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_engineering *Format a vector as values in engineering notation*

Description

With numeric values in a vector, we can perform formatting so that the input values are rendered into engineering notation within the output character vector. The following major options are available:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: choice of separator symbol

- scaling: we can choose to scale targeted values by a multiplier value
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in formatting specific to the chosen locale

Usage

```
vec_fmt_engineering(
  x,
  decimals = 2,
  drop_trailing_zeros = FALSE,
  scale_by = 1,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = "," with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "." with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the info_locales() function as a useful reference for all of the locales that are supported.

output The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In **knitr** rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(3.24e-4, 8.65, 1362902.2, -59027.3, NA)
```

Using `vec_fmt_engineering()` with the default options will create a character vector with values engineering notation. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_engineering(num_vals)
```

```
#> [1] "324.00 × 10-6" "8.65" "1.36 × 106" "-59.03 × 103" "NA"
```

We can change the number of decimal places with the `decimals` option:

```
vec_fmt_engineering(num_vals, decimals = 1)
```

```
#> [1] "324.0 × 10-6" "8.7" "1.4 × 106" "-59.0 × 103" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and **gt** will handle any locale-specific formatting options:

```
vec_fmt_engineering(num_vals, locale = "da")
```

```
#> [1] "324,00 × 10-6" "8,65" "1,36 × 106" "-59,03 × 103" "NA"
```

Should you need to have positive and negative signs on each of the output values, use `force_sign = TRUE`:

```
vec_fmt_engineering(num_vals, force_sign = TRUE)
```

```
#> [1] "+324.00 × 10-6" "+8.65" "+1.36 × 106" "-59.03 × 103" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_engineering(num_vals, pattern = "/{x}/")
```

```
#> [1] "/324.00 × 10-6/" "/8.65/" "/1.36 × 106/" "/-59.03 × 103/" "NA"
```

Function ID

14-4

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_fraction	<i>Format a vector as mixed fractions</i>
------------------	---

Description

With numeric values in vector, we can perform mixed-fraction-based formatting. There are several options for setting the accuracy of the fractions. Furthermore, there is an option for choosing a layout (i.e., typesetting style) for the mixed-fraction output.

The following options are available for controlling this type of formatting:

- **accuracy**: how to express the fractional part of the mixed fractions; there are three keyword options for this and an allowance for arbitrary denominator settings
- **simplification**: an option to simplify fractions whenever possible
- **layout**: We can choose to output values with diagonal or inline fractions
- **digit grouping separators**: options to enable/disable digit separators and provide a choice of separator symbol for the whole number portion
- **pattern**: option to use a text pattern for decoration of the formatted mixed fractions
- **locale-based formatting**: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_fraction(
  x,
  accuracy = NULL,
  simplify = TRUE,
  layout = c("inline", "diagonal"),
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",",
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
accuracy	The type of fractions to generate. This can either be one of the keywords "low", "med", or "high" (to generate fractions with denominators of up to 1, 2, or 3 digits, respectively) or an integer value greater than zero to obtain fractions with a fixed denominator (2 yields halves, 3 is for thirds, 4 is quarters, etc.). For the latter option, using <code>simplify = TRUE</code> will simplify fractions where possible (e.g., 2/4 will be simplified as 1/2). By default, the "low" option is used.
simplify	If choosing to provide a numeric value for accuracy, the option to simplify the fraction (where possible) can be taken with <code>TRUE</code> (the default). With <code>FALSE</code> , denominators in fractions will be fixed to the value provided in accuracy.
layout	For HTML output, the "inline" layout is the default. This layout places the numerals of the fraction on the baseline and uses a standard slash character. The "diagonal" layout will generate fractions that are typeset with raised/lowered numerals and a virgule.
use_seps	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is <code>TRUE</code> by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ", "</code> with 1000 would result in a formatted value of 1,000).
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in <code>sep_mark</code> and <code>dec_mark</code> . We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In <code>knitr</code> rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(0.0052, 0.08, 0, -0.535, NA)
```

Using `vec_fmt_fraction()` will create a character vector of fractions. Any NA values will render as "NA". The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_fraction(num_vals)
```

```
#> [1] "0" "1/9" "0" "-5/9" "NA"
```

There are many options for formatting as fractions. If you'd like a higher degree of accuracy in the computation of fractions we can supply the "med" or "high" keywords to the accuracy argument:

```
vec_fmt_fraction(num_vals, accuracy = "high")
```

```
#> [1] "1/200" "2/25" "0" "-107/200" "NA"
```

As a last example, one can wrap the values in a pattern with the pattern argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_fraction(num_vals, accuracy = 8, pattern = "[{x}]")
```

```
#> [1] "[0]" "[1/8]" "[0]" "[-1/2]" "NA"
```

Function ID

14-7

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_integer	<i>Format a vector as integer values</i>
-----------------	--

Description

With numeric values in a vector, we can perform number-based formatting so that the input values are always rendered as integer values within a character vector. The following major options are available:

- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_integer(
  x,
  use_seps = TRUE,
  accounting = FALSE,
  scale_by = 1,
  suffixing = FALSE,
  pattern = "{x}",
  sep_mark = ",",
  force_sign = FALSE,
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using accounting = TRUE will put negative values in parentheses.
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the suffixing options (i.e., where suffixing is not set to FALSE).
suffixing	<p>An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 2M). This option can accept a logical value, where FALSE (the default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., c("k", "Ml", "Bn", "Tr")).</p> <p>Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g. c(NA, "M", "B", "T") won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g., with c("K", "M", NA, "T"), all numbers in the range of millions and billions will be in terms of millions).</p> <p>Any use of suffixing (where it is not set expressly as FALSE) means that any value provided to scale_by will be ignored.</p>
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = "," with 1000 would result in a formatted value of 1,000).

force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with accounting = TRUE.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(5.2, 8.65, 13602, -5.3, NA)
```

Using `vec_fmt_integer()` with the default options will create a character vector where the input values undergo rounding to become integers and NA values will render as "NA". Also, the rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_integer(num_vals)
#> [1] "5" "9" "13,602" "-5" "NA"
```

We can change the digit separator mark to a period with the `sep_mark` option:

```
vec_fmt_integer(num_vals, sep_mark = ".")
#> [1] "5" "9" "13.602" "-5" "NA"
```

Many options abound for formatting values. If you have a need for positive and negative signs in front of each and every value, use `force_sign = TRUE`:

```
vec_fmt_integer(num_vals, force_sign = TRUE)
#> [1] "+5" "+9" "+13,602" "-5" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_integer(num_vals, pattern = "{x}")
#> [1] "5" "9" "13,602" "-5" "NA"
```

Function ID

14-2

See Also

Other vector formatting functions: `vec_fmt_bytes()`, `vec_fmt_currency()`, `vec_fmt_datetime()`, `vec_fmt_date()`, `vec_fmt_duration()`, `vec_fmt_engineering()`, `vec_fmt_fraction()`, `vec_fmt_markdown()`, `vec_fmt_number()`, `vec_fmt_partsper()`, `vec_fmt_percent()`, `vec_fmt_scientific()`, `vec_fmt_time()`

vec_fmt_markdown	<i>Format a vector containing Markdown text</i>
------------------	---

Description

Any Markdown-formatted text in the input vector will be transformed to the appropriate output type.

Usage

```
vec_fmt_markdown(  
  x,  
  output = c("auto", "plain", "html", "latex", "rtf", "word")  
)
```

Arguments

x	A numeric vector.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Create a vector of Markdown-based text snippets.

```
text_vec <-  
  c(  
    "This is *Markdown*.",  
    "Info on Markdown syntax can be found  
[here](https://daringfireball.net/projects/markdown/).",  
    "The gt package has these datasets:  
- `countrypops`
```

```
- `sza`
- `gtcars`
- `sp500`
- `pizzaplace`
- `exibble`"
)
```

With `vec_fmt_markdown()` we can easily convert these to different output types, like HTML

```
vec_fmt_markdown(text_vec, output = "html")
#> [1] "<p>This <strong>is</strong> <em>Markdown</em>.</p>"
#> [2] "<p>Info on Markdown syntax can be found<br><a href=\"https://daringfireball.net/projects/markdown/\">https://daringfireball.net/projects/markdown/</a></p>"
#> [3] "<p>The <strong>gt</strong> package has these datasets:</p><br><ul><br><li><code>countrypops</code></li></ul>"
```

or LaTeX

```
vec_fmt_markdown(text_vec, output = "latex")
#> [1] "This \\textbf{is} \\emph{Markdown}."
#> [2] "Info on Markdown syntax can be found\\n\\href{https://daringfireball.net/projects/markdown/}{https://daringfireball.net/projects/markdown/}<br>"
#> [3] "The \\textbf{gt} package has these datasets:\\n\\n\\begin{itemize}\\n\\item \\texttt{countrypops}"
```

Function ID

14-14

See Also

Other vector formatting functions: `vec_fmt_bytes()`, `vec_fmt_currency()`, `vec_fmt_datetime()`, `vec_fmt_date()`, `vec_fmt_duration()`, `vec_fmt_engineering()`, `vec_fmt_fraction()`, `vec_fmt_integer()`, `vec_fmt_number()`, `vec_fmt_partsper()`, `vec_fmt_percent()`, `vec_fmt_scientific()`, `vec_fmt_time()`

vec_fmt_number

Format a vector as numeric values

Description

With numeric values in a vector, we can perform number-based formatting so that the values are rendered to a character vector with some level of precision. The following major options are available:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- scaling: we can choose to scale targeted values by a multiplier value
- large-number suffixing: larger figures (thousands, millions, etc.) can be autoscaled and decorated with the appropriate suffixes
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_number(
  x,
  decimals = 2,
  n_sigfig = NULL,
  drop_trailing_zeros = FALSE,
  drop_trailing_dec_mark = TRUE,
  use_seps = TRUE,
  accounting = FALSE,
  scale_by = 1,
  suffixing = FALSE,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

<code>x</code>	A numeric vector.
<code>decimals</code>	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
<code>n_sigfig</code>	A option to format numbers to n significant figures. By default, this is NULL and thus number values will be formatted according to the number of decimal places set via <code>decimals</code> . If opting to format according to the rules of significant figures, <code>n_sigfig</code> must be a number greater than or equal to 1. Any values passed to the <code>decimals</code> and <code>drop_trailing_zeros</code> arguments will be ignored.
<code>drop_trailing_zeros</code>	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
<code>drop_trailing_dec_mark</code>	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
<code>use_seps</code>	An option to use digit group separators. The type of digit group separator is set by <code>sep_mark</code> and overridden if a locale ID is provided to <code>locale</code> . This setting is TRUE by default.
<code>accounting</code>	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using <code>accounting = TRUE</code> will put negative values in parentheses.
<code>scale_by</code>	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting. This value will be ignored if using any of the <code>suffixing</code> options (i.e., where <code>suffixing</code> is not set to FALSE).

suffixing	<p>An option to scale and apply suffixes to larger numbers (e.g., 1924000 can be transformed to 1.92M). This option can accept a logical value, where FALSE (the default) will not perform this transformation and TRUE will apply thousands (K), millions (M), billions (B), and trillions (T) suffixes after automatic value scaling. We can also specify which symbols to use for each of the value ranges by using a character vector of the preferred symbols to replace the defaults (e.g., <code>c("k", "Ml", "Bn", "Tr")</code>).</p> <p>Including NA values in the vector will ensure that the particular range will either not be included in the transformation (e.g. <code>c(NA, "M", "B", "T")</code> won't modify numbers in the thousands range) or the range will inherit a previous suffix (e.g., with <code>c("K", "M", NA, "T")</code>, all numbers in the range of millions and billions will be in terms of millions).</p> <p>Any use of <code>suffixing</code> (where it is not set expressly as FALSE) means that any value provided to <code>scale_by</code> will be ignored.</p>
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by <code>{x}</code> and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using <code>sep_mark = ","</code> with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using <code>dec_mark = "."</code> with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with <code>accounting = TRUE</code> .
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in <code>sep_mark</code> and <code>dec_mark</code> . We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(5.2, 8.65, 0, -5.3, NA)
```

Using `vec_fmt_number()` with the default options will create a character vector where the numeric values have two decimal places and NA values will render as "NA". Also, the rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_number(num_vals)

#> [1] "5.20" "8.65" "0.00" "-5.30" "NA"
```

We can change the decimal mark to a comma, and we have to be sure to change the digit separator mark from the default comma to something else (a period works here):

```
vec_fmt_number(num_vals, sep_mark = ".", dec_mark = ",")

#> [1] "5,20" "8,65" "0,00" "-5,30" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and let **gt** handle these locale-specific formatting options:

```
vec_fmt_number(num_vals, locale = "fr")

#> [1] "5,20" "8,65" "0,00" "-5,30" "NA"
```

There are many options for formatting values. Perhaps you need to have explicit positive and negative signs? Use `force_sign = TRUE` for that.

```
vec_fmt_number(num_vals, force_sign = TRUE)

#> [1] "+5.20" "+8.65" "0.00" "-5.30" "NA"
```

Those trailing zeros past the decimal mark can be stripped out by using the `drop_trailing_zeros` option.

```
vec_fmt_number(num_vals, drop_trailing_zeros = TRUE)

#> [1] "5.2" "8.65" "0" "-5.3" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_number(num_vals, pattern = "{x}")

#> [1] "`5.20`" "`8.65`" "`0.00`" "`-5.30`" "NA"
```

Function ID

14-1

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_partsper *Format a vector as parts-per quantities*

Description

With numeric values in a vector, we can format the values so that they are rendered as *per mille*, *ppm*, *ppb*, etc., quantities. The following list of keywords (with associated naming and scaling factors) is available to use within `vec_fmt_partsper()`:

- "per-mille": Per mille, (1 part in 1,000)
- "per-myriad": Per myriad, (1 part in 10,000)
- "pcm": Per cent mille (1 part in 100,000)
- "ppm": Parts per million, (1 part in 1,000,000)
- "ppb": Parts per billion, (1 part in 1,000,000,000)
- "ppt": Parts per trillion, (1 part in 1,000,000,000,000)
- "ppq": Parts per quadrillion, (1 part in 1,000,000,000,000,000)

The function provides a lot of formatting control and we can use the following options:

- custom symbol/units: we can override the automatic symbol or units display with our own choice as the situation warrants
- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- value scaling toggle: choose to disable automatic value scaling in the situation that values are already scaled coming in (and just require the appropriate symbol or unit display)
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_partsper(
  x,
  to_units = c("per-mille", "per-myriad", "pcm", "ppm", "ppb", "ppt", "ppq"),
  symbol = "auto",
  decimals = 2,
  drop_trailing_zeros = FALSE,
  drop_trailing_dec_mark = TRUE,
  scale_values = TRUE,
  use_seps = TRUE,
  pattern = "{x}",
  sep_mark = ",")
```

```

    dec_mark = ".",
    force_sign = FALSE,
    incl_space = "auto",
    locale = NULL,
    output = c("auto", "plain", "html", "latex", "rtf", "word")
)

```

Arguments

x	A numeric vector.
to_units	A keyword that signifies the desired output quantity. This can be any from the following set: "per-mille", "per-myriad", "pcm", "ppm", "ppb", "ppt", or "ppq".
symbol	The symbol/units to use for the quantity. By default, this is set to "auto" and gt will choose the appropriate symbol based on the to_units keyword and the output context. However, this can be changed by supplying a string (e.g. using symbol = "ppbV" when to_units = "ppb").
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g. 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
scale_values	Should the values be scaled through multiplication according to the keyword set in to_units? By default this is TRUE since the expectation is that normally values are proportions. Setting to FALSE signifies that the values are already scaled and require only the appropriate symbol/units when formatted.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = ", " with 1000 would result in a formatted value of 1,000).
dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "." with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with accounting = TRUE.

incl_space	An option for whether to include a space between the value and the symbol/units. The default is "auto" which provides spacing dependent on the mark itself. This can be directly controlled by using either TRUE or FALSE.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(10^(-3:-5), NA)
```

Using `vec_fmt_partsper()` with the default options will create a character vector where the resultant per mille values have two decimal places and NA values will render as "NA". The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_partsper(num_vals)
```

```
#> [1] "1.00%" "0.10%" "0.01%" "NA"
```

We can change the output units to a different measure. If ppm units are desired then `to_units = "ppm"` can be used.

```
vec_fmt_partsper(num_vals, to_units = "ppm")
```

```
#> [1] "1,000.00 ppm" "100.00 ppm" "10.00 ppm" "NA"
```

We can change the decimal mark to a comma, and we have to be sure to change the digit separator mark from the default comma to something else (a period works here):

```
vec_fmt_partsper(num_vals, to_units = "ppm", sep_mark = ".", dec_mark = ",")
```

```
#> [1] "1.000,00 ppm" "100,00 ppm" "10,00 ppm" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and let **gt** handle these locale-specific formatting options:

```
vec_fmt_partsper(num_vals, to_units = "ppm", locale = "es")
```

```
#> [1] "1.000,00 ppm" "100,00 ppm" "10,00 ppm" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_partsper(num_vals, to_units = "ppm", pattern = "{x}V")
```

```
#> [1] "1,000.00 ppmV" "100.00 ppmV" "10.00 ppmV" "NA"
```

Function ID

14-6

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_percent

Format a vector as percentage values

Description

With numeric values in vector, we can perform percentage-based formatting. It is assumed that numeric values in the input vector are proportional values and, in this case, the values will be automatically multiplied by 100 before decorating with a percent sign (the other case is accommodated though setting the `scale_values` to `FALSE`). For more control over percentage formatting, we can use the following options:

- percent sign placement: the percent sign can be placed after or before the values and a space can be inserted between the symbol and the value.
- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- digit grouping separators: options to enable/disable digit separators and provide a choice of separator symbol
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in number formatting specific to the chosen locale

Usage

```
vec_fmt_percent(
  x,
  decimals = 2,
  drop_trailing_zeros = FALSE,
  drop_trailing_dec_mark = TRUE,
  scale_values = TRUE,
  use_seps = TRUE,
  accounting = FALSE,
  pattern = "{x}",
  sep_mark = ",",
  dec_mark = ".",
  force_sign = FALSE,
  incl_space = FALSE,
  placement = "right",
  locale = NULL,
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
drop_trailing_dec_mark	A logical value that determines whether decimal marks should always appear even if there are no decimal digits to display after formatting (e.g, 23 becomes 23.). The default for this is TRUE, which means that trailing decimal marks are not shown.
scale_values	Should the values be scaled through multiplication by 100? By default this is TRUE since the expectation is that normally values are proportions. Setting to FALSE signifies that the values are already scaled and require only the percent sign when formatted.
use_seps	An option to use digit group separators. The type of digit group separator is set by sep_mark and overridden if a locale ID is provided to locale. This setting is TRUE by default.
accounting	An option to use accounting style for values. With FALSE (the default), negative values will be shown with a minus sign. Using accounting = TRUE will put negative values in parentheses.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = "," with 1000 would result in a formatted value of 1,000).

dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "," with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign. This option is disregarded when using accounting notation with accounting = TRUE.
incl_space	An option for whether to include a space between the value and the percent sign. The default is to not introduce a space character.
placement	The placement of the percent sign. This can be either be right (the default) or left.
locale	An optional locale ID that can be used for formatting the value according the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(0.0052, 0.08, 0, -0.535, NA)
```

Using `vec_fmt_percent()` with the default options will create a character vector where the resultant percentage values have two decimal places and NA values will render as "NA". The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_percent(num_vals)
```

```
#> [1] "0.52%" "8.00%" "0.00%" "-53.50%" "NA"
```

We can change the decimal mark to a comma, and we have to be sure to change the digit separator mark from the default comma to something else (a period works here):

```
vec_fmt_percent(num_vals, sep_mark = ".", dec_mark = ",")
```

```
#> [1] "0,52%" "8,00%" "0,00%" "-53,50%" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and let `gt` handle these locale-specific formatting options:

```
vec_fmt_percent(num_vals, locale = "pt")

#> [1] "0,52%" "8,00%" "0,00%" "-53,50%" "NA"
```

There are many options for formatting values. Perhaps you need to have explicit positive and negative signs? Use `force_sign = TRUE` for that.

```
vec_fmt_percent(num_vals, force_sign = TRUE)

#> [1] "+0.52%" "+8.00%" "0.00%" "-53.50%" "NA"
```

Those trailing zeros past the decimal mark can be stripped out by using the `drop_trailing_zeros` option.

```
vec_fmt_percent(num_vals, drop_trailing_zeros = TRUE)

#> [1] "0.52%" "8%" "0%" "-53.5%" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_percent(num_vals, pattern = "{x}wt")

#> [1] "0.52%wt" "8.00%wt" "0.00%wt" "-53.50%wt" "NA"
```

Function ID

14-5

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_scientific\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_scientific *Format a vector as values in scientific notation*

Description

With numeric values in a vector, we can perform formatting so that the input values are rendered into scientific notation within the output character vector. The following major options are available:

- decimals: choice of the number of decimal places, option to drop trailing zeros, and a choice of the decimal symbol
- scaling: we can choose to scale targeted values by a multiplier value
- pattern: option to use a text pattern for decoration of the formatted values
- locale-based formatting: providing a locale ID will result in formatting specific to the chosen locale

Usage

```
vec_fmt_scientific(  
  x,  
  decimals = 2,  
  drop_trailing_zeros = FALSE,  
  scale_by = 1,  
  pattern = "{x}",  
  sep_mark = ",",  
  dec_mark = ".",  
  force_sign = FALSE,  
  locale = NULL,  
  output = c("auto", "plain", "html", "latex", "rtf", "word")  
)
```

Arguments

x	A numeric vector.
decimals	An option to specify the exact number of decimal places to use. The default number of decimal places is 2.
drop_trailing_zeros	A logical value that allows for removal of trailing zeros (those redundant zeros after the decimal mark).
scale_by	A value to scale the input. The default is 1.0. All numeric values will be multiplied by this value first before undergoing formatting.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
sep_mark	The mark to use as a separator between groups of digits (e.g., using sep_mark = "," with 1000 would result in a formatted value of 1,000).

dec_mark	The character to use as a decimal mark (e.g., using dec_mark = "," with 0.152 would result in a formatted value of 0,152).
force_sign	Should the positive sign be shown for positive values (effectively showing a sign for all values except zero)? If so, use TRUE for this option. The default is FALSE, where only negative numbers will display a minus sign.
locale	An optional locale ID that can be used for formatting the value according to the locale's rules. Examples include "en_US" for English (United States) and "fr_FR" for French (France). The use of a valid locale ID will override any values provided in sep_mark and dec_mark. We can use the <code>info_locales()</code> function as a useful reference for all of the locales that are supported.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a numeric vector for the next few examples:

```
num_vals <- c(3.24e-4, 8.65, 1362902.2, -59027.3, NA)
```

Using `vec_fmt_scientific()` with the default options will create a character vector with values in scientific notation. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_scientific(num_vals)
```

```
#> [1] "3.24 × 10-4" "8.65" "1.36 × 106" "-5.90 × 104" "NA"
```

We can change the number of decimal places with the `decimals` option:

```
vec_fmt_scientific(num_vals, decimals = 1)
```

```
#> [1] "3.2 × 10-4" "8.7" "1.4 × 106" "-5.9 × 104" "NA"
```

If we are formatting for a different locale, we could supply the locale ID and `gt` will handle any locale-specific formatting options:

```
vec_fmt_scientific(num_vals, locale = "es")
```

```
#> [1] "3,24 × 10-4" "8,65" "1,36 × 106" "-5,90 × 104" "NA"
```

Should you need to have positive and negative signs on each of the output values, use `force_sign = TRUE`:

```
vec_fmt_scientific(num_vals, force_sign = TRUE)
#> [1] "+3.24 × 10-4" "+8.65" "+1.36 × 106" "-5.90 × 104" "NA"
```

As a last example, one can wrap the values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_scientific(num_vals, pattern = "[{x}]")
#> [1] "[3.24 × 10-4]" "[8.65]" "[1.36 × 106]" "[-5.90 × 104]" "NA"
```

Function ID

14-3

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_time\(\)](#)

vec_fmt_time *Format a vector as time values*

Description

Format vector values to time values using one of five presets. Input can be in the form of POSIXt (i.e., date-times), character (must be in the ISO 8601 forms of HH:MM:SS or YYYY-MM-DD HH:MM:SS), or Date (which always results in the formatting of 00:00:00).

We can simply apply a preset time style to format the times. The following time styles are available for use (all using the input time of 14:35:00 in the example output times):

1. "hms": 14:35:00
2. "hm": 14:35
3. "hms_p": 2:35:00 PM
4. "hm_p": 2:35 PM
5. "h_p": 2 PM

We can use the [info_time_style\(\)](#) function for a useful reference on all of the possible inputs to `time_style`.

Usage

```
vec_fmt_time(
  x,
  time_style = 2,
  pattern = "{x}",
  output = c("auto", "plain", "html", "latex", "rtf", "word")
)
```

Arguments

x	A numeric vector.
time_style	The time style to use. Supply a number (from 1 to 5) that corresponds to the preferred time style, or, provide a named time style ("hms", "hms_p", "h_p", etc.). Use <code>info_time_style()</code> to see the different numbered and named time presets.
pattern	A formatting pattern that allows for decoration of the formatted value. The value itself is represented by {x} and all other characters are taken to be string literals.
output	The output style of the resulting character vector. This can either be "auto" (the default), "plain", "html", "latex", "rtf", or "word". In knitr rendering (i.e., Quarto or R Markdown), the "auto" option will choose the correct output value

Value

A character vector.

Examples

Let's create a character vector of datetime values in the ISO-8601 format for the next few examples:

```
str_vals <- c("2022-06-13 18:36", "2019-01-25 01:08", NA)
```

Using `vec_fmt_time()` with the default options will create a character vector of formatted times. Any NA values remain as NA values. The rendering context will be autodetected unless specified in the output argument (here, it is of the "plain" output type).

```
vec_fmt_time(str_vals)
```

```
#> [1] "18:36" "01:08" NA
```

We can change the formatting style by choosing a number from 1 to 5:

```
vec_fmt_time(str_vals, time_style = 4)
```

```
#> [1] "6:36 PM" "1:08 AM" NA
```

We can always use `info_time_style()` to call up an info table that serves as a handy reference to all of the time styles.

As a last example, one can wrap the time values in a pattern with the `pattern` argument. Note here that NA values won't have the pattern applied.

```
vec_fmt_time(str_vals, time_style = 4, pattern = "Time: {x}")
```

```
#> [1] "Time: 6:36 PM" "Time: 1:08 AM" NA
```

Function ID

14-11

See Also

Other vector formatting functions: [vec_fmt_bytes\(\)](#), [vec_fmt_currency\(\)](#), [vec_fmt_datetime\(\)](#), [vec_fmt_date\(\)](#), [vec_fmt_duration\(\)](#), [vec_fmt_engineering\(\)](#), [vec_fmt_fraction\(\)](#), [vec_fmt_integer\(\)](#), [vec_fmt_markdown\(\)](#), [vec_fmt_number\(\)](#), [vec_fmt_partsper\(\)](#), [vec_fmt_percent\(\)](#), [vec_fmt_scientific\(\)](#)

`web_image`*Helper function for adding an image from the web*

Description

We can flexibly add a web image inside of a table with `web_image()` function. The function provides a convenient way to generate an HTML fragment with an image URL. Because this function is currently HTML-based, it is only useful for HTML table output. To use this function inside of data cells, it is recommended that the [text_transform\(\)](#) function is used. With that function, we can specify which data cells to target and then include a `web_image()` call within the required user-defined function (for the `fn` argument). If we want to include an image in other places (e.g., in the header, within footnote text, etc.) we need to use `web_image()` within the [html\(\)](#) helper function.

Usage

```
web_image(url, height = 30)
```

Arguments

<code>url</code>	A url that resolves to an image file.
<code>height</code>	The absolute height (px) of the image in the table cell.

Details

By itself, the function creates an HTML image tag, so, the call `web_image("http://example.com/image.png")` evaluates to:

```
<img src=\"http://example.com/image.png\" style=\"height:30px;\">
```

where a height of 30px is a default height chosen to work well within the heights of most table rows.

Value

A character object with an HTML fragment that can be placed inside of a cell.

Examples

Get the PNG-based logo for the R Project from an image URL.

```
r_png_url <- "https://www.r-project.org/logo/Rlogo.png"
```

Create a tibble that contains heights of an image in pixels (one column as a string, the other as numerical values), then, create a **gt** table. Use the `text_transform()` function to insert the R logo PNG image with the various sizes.

```
dplyr::tibble(
  pixels = px(seq(10, 35, 5)),
  image = seq(10, 35, 5)
) %>%
  gt() %>%
  text_transform(
    locations = cells_body(columns = image),
    fn = function(x) {
      web_image(
        url = r_png_url,
        height = as.numeric(x)
      )
    }
  )
```

Get the SVG-based logo for the R Project from an image URL.

```
r_svg_url <- "https://www.r-project.org/logo/Rlogo.svg"
```

Create a tibble that contains heights of an image in pixels (one column as a string, the other as numerical values), then, create a **gt** table. Use the `tab_header()` function to insert the R logo SVG image once in the title and five times in the subtitle.

```
dplyr::tibble(
  pixels = px(seq(10, 35, 5)),
  image = seq(10, 35, 5)
) %>%
  gt() %>%
  tab_header(
    title = html(
      "<strong>R Logo</strong>",
      web_image(
        url = r_svg_url,
        height = px(50)
      )
    ),
    subtitle = html(
      web_image(
```



```
      url = r_svg_url,  
      height = px(12)  
    ) %>%  
      rep(5)  
  )  
)
```

Function ID

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See Also

Other image addition functions: [ggplot_image\(\)](#), [local_image\(\)](#), [test_image\(\)](#)

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