

# Visual Test of typstable

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## tt() Base

### Default with rownames=TRUE

Default table includes row names as the first column.

```
tt(mt)
```

|                   | mpg  | cyl | disp |
|-------------------|------|-----|------|
| Mazda RX4         | 21   | 6   | 160  |
| Mazda RX4 Wag     | 21   | 6   | 160  |
| Datsun 710        | 22.8 | 4   | 108  |
| Hornet 4 Drive    | 21.4 | 6   | 258  |
| Hornet Sportabout | 18.7 | 8   | 360  |

### rownames=FALSE

Exclude row names entirely.

```
tt(mt, rownames = FALSE)
```

| mpg | cyl | disp |
|-----|-----|------|
| 21  | 6   | 160  |

|      |   |     |
|------|---|-----|
| 21   | 6 | 160 |
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## cols with tidy-select subset

Select specific columns with tidy-select syntax.

```
tt(mtcars[1:5, ], cols = c(mpg, cyl, hp), rownames = FALSE)
```

| mpg  | cyl | hp  |
|------|-----|-----|
| 21   | 6   | 110 |
| 21   | 6   | 110 |
| 22.8 | 4   | 93  |
| 21.4 | 6   | 110 |
| 18.7 | 8   | 175 |

## col\_names custom names

Override display names for columns.

```
tt(mt, col_names = c("", "Miles/Gallon", "Cylinders", "Displacement"))
```

|                   | Miles/Gallon | Cylinders | Displacement |
|-------------------|--------------|-----------|--------------|
| Mazda RX4         | 21           | 6         | 160          |
| Mazda RX4 Wag     | 21           | 6         | 160          |
| Datsun 710        | 22.8         | 4         | 108          |
| Hornet 4 Drive    | 21.4         | 6         | 258          |
| Hornet Sportabout | 18.7         | 8         | 360          |

## align single value

Apply a single alignment to all columns.

```
tt(mt, align = "center", rownames = FALSE)
```

| mpg | cyl | disp |
|-----|-----|------|
|-----|-----|------|

|      |   |     |
|------|---|-----|
| 21   | 6 | 160 |
| 21   | 6 | 160 |
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## align per-column vector

Specify alignment for each column individually.

```
tt(mt, align = c("left", "right", "center"), rownames = FALSE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## col\_widths explicit

Provide explicit column widths via the col\_widths parameter.

```
tt(mt, col_widths = c("100pt", "2fr", "1fr"), rownames = FALSE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## escape=TRUE with special characters

Typst special characters are escaped by default.

```
special <- data.frame(
  col1 = c("**bold*", "_underline_", "#heading"),
```

```
col2 = c("@ref", "<angle>", "a > b"),
stringsAsFactors = FALSE
)
tt(special, escape = TRUE, rownames = FALSE)
```

| col1        | col2    |
|-------------|---------|
| *bold*      | @ref    |
| _underline_ | <angle> |
| #heading    | a > b   |

## escape=FALSE with raw Typst markup

Allow raw Typst markup to pass through unescaped.

```
raw_typst <- data.frame(
  col1 = c("#strong[Bold]", "#emph[Italic]", "plain"),
  col2 = c("a", "b", "c"),
  stringsAsFactors = FALSE
)
tt(raw_typst, escape = FALSE, rownames = FALSE)
```

| col1          | col2 |
|---------------|------|
| <b>Bold</b>   | a    |
| <i>Italic</i> | b    |
| plain         | c    |

## Quarto cross-reference

Test Quarto tbl-cap and label options.

```
tt(mt, rownames = FALSE) |>
  tt_style(stroke = TRUE)
```

Table 1: This is a caption

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

See Table 1.

## tt\_widths()

### Positional proportional widths

Set widths as proportional values applied in column order.

```
tt(mt, rownames = FALSE) |>
  tt_widths(1, 3, 1)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Named column widths

Target specific columns by name.

```
tt(mt, rownames = FALSE) |>
  tt_widths(mpg = 2, cyl = 1, disp = 3)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |



|      |   |     |
|------|---|-----|
| 18.7 | 8 | 360 |
|------|---|-----|

## Equal explicit widths

All columns get equal proportions.

```
tt(mt, rownames = FALSE) |>
  tt_widths(1, 1, 1)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## tt\_style()

### stroke=TRUE (full grid)

Add default borders to all cells.

```
tt(mt, rownames = FALSE) |>
  tt_style(stroke = TRUE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### stroke with color

Add blue 2pt borders.

```
tt(mt, rownames = FALSE) |>
  tt_style(stroke = "2pt + blue")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### striped=TRUE

Alternate row fill colors.

```
tt(mt, rownames = FALSE) |>
  tt_style(striped = TRUE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### fill (global)

Set a fill color for the entire table.

```
tt(mt, rownames = FALSE) |>
  tt_style(fill = "#f5f5dc")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### inset (global padding)

Set cell padding globally.

```
tt(mt, rownames = FALSE) |>
  tt_style(inset = "8pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### row\_gutter with stroke

Add vertical spacing between rows.

```
tt(mt, rownames = FALSE) |>
  tt_style(stroke = TRUE, row_gutter = "4pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### column\_gutter with stroke

Add horizontal spacing between columns.

```
tt(mt, rownames = FALSE) |>
  tt_style(stroke = TRUE, column_gutter = "4pt")
```

| mpg | cyl | disp |
|-----|-----|------|
| 21  | 6   | 160  |
| 21  | 6   | 160  |

|      |   |     |
|------|---|-----|
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

### **position="center" with full\_width=FALSE**

Center a non-full-width table on the page.

```
tt(mt, rownames = FALSE) |>
  tt_style(position = "center", full_width = FALSE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### **full\_width=TRUE**

Force the table to span the full page width.

```
tt(mt, rownames = FALSE) |>
  tt_style(full_width = TRUE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## **tt\_column() Static Styling**

### **bold=TRUE**

Make the mpg column bold.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, bold = TRUE)
```

| <b>mpg</b>  | cyl | disp |
|-------------|-----|------|
| <b>21</b>   | 6   | 160  |
| <b>21</b>   | 6   | 160  |
| <b>22.8</b> | 4   | 108  |
| <b>21.4</b> | 6   | 258  |
| <b>18.7</b> | 8   | 360  |

### italic=TRUE

Make the cyl column italic.

```
tt(mt, rownames = FALSE) |>
  tt_column(cyl, italic = TRUE)
```

| mpg  | <i>cyl</i> | disp |
|------|------------|------|
| 21   | 6          | 160  |
| 21   | 6          | 160  |
| 22.8 | 4          | 108  |
| 21.4 | 6          | 258  |
| 18.7 | 8          | 360  |

### color (static string)

Apply blue text color to a column.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, color = "blue")
```

| <b>mpg</b> | cyl | disp |
|------------|-----|------|
| 21         | 6   | 160  |
| 21         | 6   | 160  |
| 22.8       | 4   | 108  |
| 21.4       | 6   | 258  |
| 18.7       | 8   | 360  |

## fill (static)

Apply yellow fill to a column.

```
tt(mt, rownames = FALSE) |>  
  tt_column(dis, fill = "yellow")
```

| mpg  | cyl | dis |
|------|-----|-----|
| 21   | 6   | 160 |
| 21   | 6   | 160 |
| 22.8 | 4   | 108 |
| 21.4 | 6   | 258 |
| 18.7 | 8   | 360 |

## font\_size

Set a smaller font size on a column.

```
tt(mt, rownames = FALSE) |>  
  tt_column(mpg, font_size = "8pt")
```

| mpg  | cyl | dis |
|------|-----|-----|
| 21   | 6   | 160 |
| 21   | 6   | 160 |
| 22.8 | 4   | 108 |
| 21.4 | 6   | 258 |
| 18.7 | 8   | 360 |

## rotate (numeric)

Rotate column content by 90 degrees using a numeric value.

```
tt(mt, rownames = FALSE) |>  
  tt_column(cyl, rotate = 90)
```

| mpg | cyl | dis |
|-----|-----|-----|
| 21  | 6   | 160 |
| 21  | 6   | 160 |

|      |   |     |
|------|---|-----|
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

### rotate (string)

Rotate column content by 45 degrees using a string value.

```
tt(mt, rownames = FALSE) |>
  tt_column(cyl, rotate = "45deg")
```

| mpg  |   | disp |
|------|---|------|
| 21   | 6 | 160  |
| 21   | 6 | 160  |
| 22.8 | 4 | 108  |
| 21.4 | 6 | 258  |
| 18.7 | 8 | 360  |

### inset

Apply custom cell padding to a column.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, inset = "12pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## width override

Override the width of a single column.

```
tt(mt, rownames = FALSE) |>  
  tt_column(mpg, width = "100pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## border\_left=TRUE

Add a left border to a column.

```
tt(mt, rownames = FALSE) |>  
  tt_column(cyl, border_left = TRUE)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## border\_right with stroke spec

Add a styled right border to a column.

```
tt(mt, rownames = FALSE) |>  
  tt_column(cyl, border_right = "2pt + red")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |



|      |   |     |
|------|---|-----|
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## tt\_column() Tidy-Select

### Multiple columns with c()

Style multiple columns at once.

```
tt(mt, rownames = FALSE) |>
  tt_column(c(mpg, disp), bold = TRUE, color = "navy")
```

| <b>mpg</b>  | <b>cyl</b> | <b>disp</b> |
|-------------|------------|-------------|
| <b>21</b>   | 6          | <b>160</b>  |
| <b>21</b>   | 6          | <b>160</b>  |
| <b>22.8</b> | 4          | <b>108</b>  |
| <b>21.4</b> | 6          | <b>258</b>  |
| <b>18.7</b> | 8          | <b>360</b>  |

### everything() selector

Apply styling to all columns.

```
tt(mt, rownames = FALSE) |>
  tt_column(everything(), fill = "#f0f0f0")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Numeric index

Target a column by its numeric position.

```
tt(mt, rownames = FALSE) |>
  tt_column(1, italic = TRUE, color = "red")
```

| <i>mpg</i> | cyl | disp |
|------------|-----|------|
| 21         | 6   | 160  |
| 21         | 6   | 160  |
| 22.8       | 4   | 108  |
| 21.4       | 6   | 258  |
| 18.7       | 8   | 360  |

## tt\_column() Data-Driven

### fill via bare column reference

Use a hidden column to drive fill colors per row.

```
df_bg <- data.frame(
  name = c("Alice", "Bob", "Carol"),
  score = c(95, 72, 88),
  bg = c("green", "red", "yellow"),
  stringsAsFactors = FALSE
)
tt(df_bg, cols = c(name, score), rownames = FALSE) |>
  tt_column(score, fill = bg)
```

| name  | score |
|-------|-------|
| Alice | 95    |
| Bob   | 72    |
| Carol | 88    |

### color via pattern

Use {col} pattern to find per-column color columns.

```
df_color <- data.frame(
  a = c(10, 20, 30),
  b = c(40, 50, 60),
  color_a = c("red", "green", "blue"),
  color_b = c("purple", "orange", "black"),
  stringsAsFactors = FALSE
)
tt(df_color, cols = c(a, b), rownames = FALSE) |>
  tt_column(c(a, b), color = "color_{col}")
```

| a  | b  |
|----|----|
| 10 | 40 |
| 20 | 50 |
| 30 | 60 |

## bold via bare column reference

Use a boolean column to conditionally bold cells.

```
df_bold <- data.frame(
  item = c("A", "B", "C"),
  value = c(1, 2, 3),
  is_bold = c(TRUE, FALSE, TRUE),
  stringsAsFactors = FALSE
)
tt(df_bold, cols = c(item, value), rownames = FALSE) |>
  tt_column(value, bold = is_bold)
```

| item | value    |
|------|----------|
| A    | <b>1</b> |
| B    | 2        |
| C    | <b>3</b> |

## italic via pattern

Use {col} pattern for per-column italic flags.

```
df_italic <- data.frame(
  x = c("foo", "bar", "baz"),
  italic_x = c(TRUE, FALSE, TRUE),
  stringsAsFactors = FALSE
)
tt(df_italic, cols = x, rownames = FALSE) |>
  tt_column(x, italic = "italic_{col}")
```

| x          |
|------------|
| <i>foo</i> |
| bar        |
| <i>baz</i> |

## font\_size via pattern

Drive font size from a data column.

```
df_size <- data.frame(  
  label = c("Small", "Medium", "Large"),  
  size_label = c("8pt", "10pt", "14pt"),  
  stringsAsFactors = FALSE  
)  
tt(df_size, cols = label, rownames = FALSE) |>  
  tt_column(label, font_size = "size_{col}")
```

---

label

---

Small

Medium

Large

---

## rotate via bare column reference

Drive rotation angle from a data column.

```
df_rot <- data.frame(  
  text = c("Up", "Tilt", "Down"),  
  angle = c("90deg", "45deg", "-45deg"),  
  stringsAsFactors = FALSE  
)  
tt(df_rot, cols = text, rownames = FALSE) |>  
  tt_column(text, rotate = angle)
```

---

text

---

Up

Tilt

Down

---

## .missing="ignore" with nonexistent pattern column

Silently skip when a pattern column does not exist.

```
tt(mt, rownames = FALSE) |>  
  tt_column(c(mpg, cyl), color = "color_{col}", .missing = "ignore")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## inset via pattern

Drive cell padding from a data column.

```
df_inset <- data.frame(
  val = c(1, 2, 3),
  inset_val = c("4pt", "8pt", "16pt"),
  stringsAsFactors = FALSE
)
tt(df_inset, cols = val, rownames = FALSE) |>
  tt_column(val, inset = "inset_{col}")
```

| val |
|-----|
| 1   |
| 2   |
| 3   |

## tt\_row()

### Header row styling

Style the header row (row 0) with bold, fill, and color.

```
tt(mt, rownames = FALSE) |>
  tt_row(0, bold = TRUE, fill = "navy", color = "white")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |

|      |   |     |
|------|---|-----|
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## Single data row fill and color

Highlight a single data row.

```
tt(mt, rownames = FALSE) |>
  tt_row(2, fill = "#ffffcc", color = "darkred")
```

| mpg       | cyl      | disp       |
|-----------|----------|------------|
| 21        | 6        | 160        |
| <b>21</b> | <b>6</b> | <b>160</b> |
| 22.8      | 4        | 108        |
| 21.4      | 6        | 258        |
| 18.7      | 8        | 360        |

## Multiple rows with fill

Style rows 1, 3, and 5 simultaneously.

```
tt(mt, rownames = FALSE) |>
  tt_row(c(1, 3, 5), fill = "#e0e0ff")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## italic and font\_size on a row

Apply italic and custom font size to a row.

```
tt(mt, rownames = FALSE) |>
  tt_row(1, italic = TRUE, font_size = "8pt")
```

| mpg | cyl | disp |
|-----|-----|------|
|-----|-----|------|

|      |   |     |
|------|---|-----|
| 21   | 6 | 160 |
| 21   | 6 | 160 |
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

### align override on a row

Override alignment for a specific row.

```
tt(mt, rownames = FALSE) |>
  tt_row(2, align = "center")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### rotate on a data row

Rotate all content in a data row.

```
tt(mt, rownames = FALSE) |>
  tt_row(1, rotate = 45)
```

| mpg  | cyl | disp |
|------|-----|------|
| ↷    | ↷   | ↷    |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### inset on a row

Apply extra padding to a row.

```
tt(mt, rownames = FALSE) |>
  tt_row(3, inset = "10pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## hline\_above and hline\_below

Add horizontal lines around a row.

```
tt(mt, rownames = FALSE) |>
  tt_row(3, hline_above = TRUE, hline_below = "2pt + red")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## tt\_cell()

### fill and bold on a cell

Highlight a specific cell with fill and bold.

```
tt(mt, rownames = FALSE) |>
  tt_cell(1, 1, fill = "yellow", bold = TRUE)
```

| mpg       | cyl | disp |
|-----------|-----|------|
| <b>21</b> | 6   | 160  |
| 21        | 6   | 160  |
| 22.8      | 4   | 108  |



|      |   |     |
|------|---|-----|
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

### italic, color, and font\_size on a cell

Apply multiple styles to a single cell.

```
tt(mt, rownames = FALSE) |>
  tt_cell(2, 2, italic = TRUE, color = "red", font_size = "14pt")
```

| mpg  | cyl      | disp |
|------|----------|------|
| 21   | 6        | 160  |
| 21   | <b>6</b> | 160  |
| 22.8 | 4        | 108  |
| 21.4 | 6        | 258  |
| 18.7 | 8        | 360  |

### align override on a cell

Override alignment for one cell.

```
tt(mt, rownames = FALSE) |>
  tt_cell(1, 1, align = "right")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### rotate on a cell

Rotate a single cell.

```
tt(mt, rownames = FALSE) |>
  tt_cell(3, 1, rotate = 90)
```

| mpg | cyl | disp |
|-----|-----|------|
|-----|-----|------|

|      |   |     |
|------|---|-----|
| 21   | 6 | 160 |
| 21   | 6 | 160 |
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

### inset on a cell

Add extra padding to a specific cell.

```
tt(mt, rownames = FALSE) |>
  tt_cell(2, 3, inset = "12pt")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### colspan=2 with content override

Span a cell across two columns with replacement content.

```
tt(mt, rownames = FALSE) |>
  tt_cell(1, 1, colspan = 2, content = "Combined")
```

| mpg      | cyl  | disp |
|----------|------|------|
| Combined |      | 6    |
| 160      | 21   | 6    |
| 160      | 22.8 | 4    |
| 108      | 21.4 | 6    |
| 258      | 18.7 | 8    |
| 360      |      |      |

## rowspan=3 with content override

Span a cell across three rows with replacement content.

```
tt(mt, rownames = FALSE) |>
  tt_cell(1, 1, rowspan = 3, content = "Grouped")
```

| mpg     | cyl | disp |
|---------|-----|------|
| Grouped | 6   | 160  |
|         | 21  | 6    |
|         | 160 | 22.8 |
| 4       | 108 | 21.4 |
| 6       | 258 | 18.7 |
| 8       | 360 |      |

## content override with styling

Replace cell content and apply formatting.

```
tt(mt, rownames = FALSE) |>
  tt_cell(1, 1, content = "CUSTOM", bold = TRUE, color = "blue", fill =
    "#f0f0f0")
```

| mpg           | cyl | disp |
|---------------|-----|------|
| <b>CUSTOM</b> | 6   | 160  |
| 21            | 6   | 160  |
| 22.8          | 4   | 108  |
| 21.4          | 6   | 258  |
| 18.7          | 8   | 360  |

## Header cell styling

Style a cell in the header row (row 0).

```
tt(mt, rownames = FALSE) |>
  tt_cell(0, 1, bold = TRUE, color = "red", fill = "lightyellow")
```

|            |     |      |
|------------|-----|------|
| <b>mpg</b> | cyl | disp |
| 21         | 6   | 160  |

|      |   |     |
|------|---|-----|
| 21   | 6 | 160 |
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## tt\_hline() and tt\_vline()

### Custom hline at position 3

Add a horizontal line below the third data row.

```
tt(mt, rownames = FALSE) |>
  tt_hline(3)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Hline with styled stroke

Add a blue 2pt horizontal line.

```
tt(mt, rownames = FALSE) |>
  tt_hline(2, stroke = "2pt + blue")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Partial hline with start/end

A horizontal line spanning only some columns.

```
tt(mt, rownames = FALSE) |>
  tt_hline(2, start = 0, end = 2)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Vline after column 1

Add a vertical line after the first column.

```
tt(mt, rownames = FALSE) |>
  tt_vline(1)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Vline with styled stroke

Add a gray vertical line.

```
tt(mt, rownames = FALSE) |>
  tt_vline(1, stroke = "1pt + gray")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## Partial vline with start/end

A vertical line spanning only some rows.

```
tt(mt, rownames = FALSE) |>  
  tt_vline(1, start = 1, end = 5)
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## tt\_pack\_rows()

### Single group with default indent and bold

Pack rows into one labeled group.

```
tt(mt10, rownames = FALSE) |>  
  tt_pack_rows("Group A", 1, 5)
```

| mpg            | cyl | disp  |
|----------------|-----|-------|
| <b>Group A</b> |     |       |
| 21             | 6   | 160   |
| 21             | 6   | 160   |
| 22.8           | 4   | 108   |
| 21.4           | 6   | 258   |
| 18.7           | 8   | 360   |
| 18.1           | 6   | 225   |
| 14.3           | 8   | 360   |
| 24.4           | 4   | 146.7 |
| 22.8           | 4   | 140.8 |
| 19.2           | 6   | 167.6 |

## Multiple chained groups

Chain multiple `pack_rows` calls.

```
tt(mt10, rownames = FALSE) |>  
  tt_pack_rows("Group A", 1, 5) |>  
  tt_pack_rows("Group B", 6, 10)
```

| mpg            | cyl | disp  |
|----------------|-----|-------|
| <b>Group A</b> |     |       |
| 21             | 6   | 160   |
| 21             | 6   | 160   |
| 22.8           | 4   | 108   |
| 21.4           | 6   | 258   |
| 18.7           | 8   | 360   |
| <b>Group B</b> |     |       |
| 18.1           | 6   | 225   |
| 14.3           | 8   | 360   |
| 24.4           | 4   | 146.7 |
| 22.8           | 4   | 140.8 |
| 19.2           | 6   | 167.6 |

## index parameter

Define multiple groups with a named vector.

```
tt(mt10, rownames = FALSE) |>  
  tt_pack_rows(index = c("First Five" = 5, "Last Five" = 5))
```

| mpg               | cyl | disp |
|-------------------|-----|------|
| <b>First Five</b> |     |      |
| 21                | 6   | 160  |
| 21                | 6   | 160  |
| 22.8              | 4   | 108  |
| 21.4              | 6   | 258  |
| 18.7              | 8   | 360  |

| Last Five |   |       |
|-----------|---|-------|
| 18.1      | 6 | 225   |
| 14.3      | 8 | 360   |
| 24.4      | 4 | 146.7 |
| 22.8      | 4 | 140.8 |
| 19.2      | 6 | 167.6 |

## indent=FALSE

Disable indentation of grouped rows.

```
tt(mt10, rownames = FALSE) |>
  tt_pack_rows("No Indent Group", 1, 5, indent = FALSE)
```

| mpg             | cyl | disp  |
|-----------------|-----|-------|
| No Indent Group |     |       |
| 21              | 6   | 160   |
| 21              | 6   | 160   |
| 22.8            | 4   | 108   |
| 21.4            | 6   | 258   |
| 18.7            | 8   | 360   |
| 18.1            | 6   | 225   |
| 14.3            | 8   | 360   |
| 24.4            | 4   | 146.7 |
| 22.8            | 4   | 140.8 |
| 19.2            | 6   | 167.6 |

## bold\_label=FALSE

Use a non-bold group label.

```
tt(mt10, rownames = FALSE) |>
  tt_pack_rows("Light Label", 1, 5, bold_label = FALSE)
```

| mpg         | cyl | disp |
|-------------|-----|------|
| Light Label |     |      |



|      |   |       |
|------|---|-------|
| 21   | 6 | 160   |
| 21   | 6 | 160   |
| 22.8 | 4 | 108   |
| 21.4 | 6 | 258   |
| 18.7 | 8 | 360   |
| 18.1 | 6 | 225   |
| 14.3 | 8 | 360   |
| 24.4 | 4 | 146.7 |
| 22.8 | 4 | 140.8 |
| 19.2 | 6 | 167.6 |

## Basic tt\_header\_above()

### Single spanning header

Add one spanning header group above the columns.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("All Columns" = 6))
```

| All Columns |       |     |      |     |       |
|-------------|-------|-----|------|-----|-------|
| mpg         | qsec  | cyl | disp | hp  | wt    |
| 21          | 16.46 | 6   | 160  | 110 | 2.62  |
| 21          | 17.02 | 6   | 160  | 110 | 2.875 |
| 22.8        | 18.61 | 4   | 108  | 93  | 2.32  |
| 21.4        | 19.44 | 6   | 258  | 110 | 3.215 |
| 18.7        | 17.02 | 8   | 360  | 175 | 3.44  |
| 18.1        | 20.22 | 6   | 225  | 105 | 3.46  |

### Multiple groups with default gap

Group columns into multiple labeled spans.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2))
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Groups with empty spacer

Use a space label for ungrouped columns.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c(" " = 1, "Performance" = 2, "Characteristics" = 3))
```

|      | Performance |     | Characteristics |     |       |
|------|-------------|-----|-----------------|-----|-------|
| mpg  | qsec        | cyl | disp            | hp  | wt    |
| 21   | 16.46       | 6   | 160             | 110 | 2.62  |
| 21   | 17.02       | 6   | 160             | 110 | 2.875 |
| 22.8 | 18.61       | 4   | 108             | 93  | 2.32  |
| 21.4 | 19.44       | 6   | 258             | 110 | 3.215 |
| 18.7 | 17.02       | 8   | 360             | 175 | 3.44  |
| 18.1 | 20.22       | 6   | 225             | 105 | 3.46  |

## gap=NULL (no gap columns)

Disable gap columns between header groups.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2), gap =
    NULL)
```

| Performance |       | Engine |      | Design |      |
|-------------|-------|--------|------|--------|------|
| mpg         | qsec  | cyl    | disp | hp     | wt   |
| 21          | 16.46 | 6      | 160  | 110    | 2.62 |

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### gap="20pt" (wider gap)

Use wider gap columns between header groups.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2), gap =
    "20pt")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### Custom styling (bold=FALSE, color, fill, align)

Override the default bold and apply colors.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(
    c("Performance" = 2, "Engine" = 2, "Design" = 2),
    bold = FALSE,
    color = "white",
    fill = "navy",
    align = "left"
  )
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## line=FALSE

Disable the horizontal line below the spanning header.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2), line =
    FALSE)
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## italic + font\_size

Use the italic and font\_size parameters.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(
    c("Performance" = 2, "Engine" = 2, "Design" = 2),
    italic = TRUE, font_size = "14pt"
  )
```

| <i>Performance</i> |       | <i>Engine</i> |      | <i>Design</i> |       |
|--------------------|-------|---------------|------|---------------|-------|
| mpg                | qsec  | cyl           | disp | hp            | wt    |
| 21                 | 16.46 | 6             | 160  | 110           | 2.62  |
| 21                 | 17.02 | 6             | 160  | 110           | 2.875 |
| 22.8               | 18.61 | 4             | 108  | 93            | 2.32  |
| 21.4               | 19.44 | 6             | 258  | 110           | 3.215 |
| 18.7               | 17.02 | 8             | 360  | 175           | 3.44  |
| 18.1               | 20.22 | 6             | 225  | 105           | 3.46  |

## rotate

Rotate the header\_above text.

```
tt(mt4, rownames = FALSE) |>
  tt_header_above(c("AB" = 2, "CD" = 2), rotate = 45, gap = NULL)
```

| <i>AB</i> |     | <i>CD</i> |     |
|-----------|-----|-----------|-----|
| mpg       | cyl | disp      | hp  |
| 21        | 6   | 160       | 110 |
| 21        | 6   | 160       | 110 |
| 22.8      | 4   | 108       | 93  |
| 21.4      | 6   | 258       | 110 |
| 18.7      | 8   | 360       | 175 |

## inset

Custom padding on the header\_above row.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(
    c("Performance" = 2, "Engine" = 2, "Design" = 2),
    inset = "12pt", fill = "#f0f0f0"
  )
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Stacked Headers

### Two stacked header rows (no gaps)

Add two levels of spanning headers without gaps.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2), gap =
NULL) |>
  tt_header_above(c("Car Metrics" = 6))
```

| Car Metrics |       |        |      |        |       |
|-------------|-------|--------|------|--------|-------|
| Performance |       | Engine |      | Design |       |
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### Three stacked headers with different styling (no gaps)

Multiple header levels with distinct visual styles.

```
tt(mt6, rownames = FALSE, align = 'center') |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2)) |>
```

```
tt_header_above(c("Left" = 3, "Right" = 3), fill = "lightgrey") |>
tt_header_above(c("All" = 6), fill = "navy", color = "white")
```

| All  |       |     |       |     |       |
|------|-------|-----|-------|-----|-------|
| Left |       |     | Right |     |       |
| A    |       | B   |       | C   |       |
| mpg  | qsec  | cyl | disp  | hp  | wt    |
| 21   | 16.46 | 6   | 160   | 110 | 2.62  |
| 21   | 17.02 | 6   | 160   | 110 | 2.875 |
| 22.8 | 18.61 | 4   | 108   | 93  | 2.32  |
| 21.4 | 19.44 | 6   | 258   | 110 | 3.215 |
| 18.7 | 17.02 | 8   | 360   | 175 | 3.44  |
| 18.1 | 20.22 | 6   | 225   | 105 | 3.46  |

## Two stacked headers with gaps on innermost

Stacked headers where the innermost header has gaps. Outer header colspans auto-adjust.

```
tt(mt6, rownames = FALSE) |>
tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
tt_header_above(c("Car Metrics" = 6))
```

| Car Metrics |       |        |      |        |       |
|-------------|-------|--------|------|--------|-------|
| Performance |       | Engine |      | Design |       |
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### Three stacked headers with gaps

Three stacked levels where the innermost has gaps. Outer headers adjust to accommodate gap columns.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2)) |>
  tt_header_above(c("Left" = 3, "Right" = 3), fill = "lightgray") |>
  tt_header_above(c("All" = 6), fill = "navy", color = "white")
```

| All  |       |     |       |     |       |
|------|-------|-----|-------|-----|-------|
| Left |       |     | Right |     |       |
| A    |       | B   |       | C   |       |
| mpg  | qsec  | cyl | disp  | hp  | wt    |
| 21   | 16.46 | 6   | 160   | 110 | 2.62  |
| 21   | 17.02 | 6   | 160   | 110 | 2.875 |
| 22.8 | 18.61 | 4   | 108   | 93  | 2.32  |
| 21.4 | 19.44 | 6   | 258   | 110 | 3.215 |
| 18.7 | 17.02 | 8   | 360   | 175 | 3.44  |
| 18.1 | 20.22 | 6   | 225   | 105 | 3.46  |

### Targeting Headers with tt\_row() (Negative Indices)

Use `tt_row()` with negative row indices to style `tt_header_above()` rows. Row `-1` is the innermost (closest to the main header), `-2` is the next up, etc.

#### Italic via `tt_row(-1)`

Override the innermost header\_above row with italic.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_row(-1, italic = TRUE)
```

| <i>Performance</i> |       | <i>Engine</i> |      | <i>Design</i> |       |
|--------------------|-------|---------------|------|---------------|-------|
| mpg                | qsec  | cyl           | disp | hp            | wt    |
| 21                 | 16.46 | 6             | 160  | 110           | 2.62  |
| 21                 | 17.02 | 6             | 160  | 110           | 2.875 |
| 22.8               | 18.61 | 4             | 108  | 93            | 2.32  |



| <i>Performance</i> |       | <i>Engine</i> |      | <i>Design</i> |       |
|--------------------|-------|---------------|------|---------------|-------|
| mpg                | qsec  | cyl           | disp | hp            | wt    |
| 21.4               | 19.44 | 6             | 258  | 110           | 3.215 |
| 18.7               | 17.02 | 8             | 360  | 175           | 3.44  |
| 18.1               | 20.22 | 6             | 225  | 105           | 3.46  |

### Fill via `tt_row(-1)`

Apply a fill color to the innermost header\_above row.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_row(-1, fill = "#cce5ff")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### Override `bold=FALSE` via `tt_row(-1)`

The `header_above` defaults to `bold=TRUE`. Override it with `tt_row()`.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_row(-1, bold = FALSE, color = "navy")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |

| Performance |       | Engine |      | Design |      |
|-------------|-------|--------|------|--------|------|
| mpg         | qsec  | cyl    | disp | hp     | wt   |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44 |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46 |

## Color + font\_size via tt\_row(-1)

Combine color and font\_size overrides.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_row(-1, color = "red", font_size = "14pt")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Style different stacked rows independently

Target each stacked header\_above row by its negative index.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2)) |>
  tt_header_above(c("All" = 6)) |>
  tt_row(-1, fill = "#ffffcc", italic = TRUE) |>
  tt_row(-2, fill = "navy", color = "white")
```

| All |       |     |      |     |       |
|-----|-------|-----|------|-----|-------|
| A   |       | B   |      | C   |       |
| mpg | qsec  | cyl | disp | hp  | wt    |
| 21  | 16.46 | 6   | 160  | 110 | 2.62  |
| 21  | 17.02 | 6   | 160  | 110 | 2.875 |

| All  |       |     |      |     |       |
|------|-------|-----|------|-----|-------|
| A    |       | B   |      | C   |       |
| mpg  | qsec  | cyl | disp | hp  | wt    |
| 22.8 | 18.61 | 4   | 108  | 93  | 2.32  |
| 21.4 | 19.44 | 6   | 258  | 110 | 3.215 |
| 18.7 | 17.02 | 8   | 360  | 175 | 3.44  |
| 18.1 | 20.22 | 6   | 225  | 105 | 3.46  |

### Three stacked rows with individual styles

Each header level gets a distinct visual treatment.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2), gap = NULL) |>
  tt_header_above(c("Left" = 3, "Right" = 3), gap = NULL) |>
  tt_header_above(c("Title" = 6)) |>
  tt_row(-1, fill = "#e8f5e9") |>
  tt_row(-2, fill = "#e3f2fd") |>
  tt_row(-3, fill = "#fce4ec", italic = TRUE)
```

| Title |       |     |       |     |       |
|-------|-------|-----|-------|-----|-------|
| Left  |       |     | Right |     |       |
| A     | B     |     | C     |     |       |
| mpg   | qsec  | cyl | disp  | hp  | wt    |
| 21    | 16.46 | 6   | 160   | 110 | 2.62  |
| 21    | 17.02 | 6   | 160   | 110 | 2.875 |
| 22.8  | 18.61 | 4   | 108   | 93  | 2.32  |
| 21.4  | 19.44 | 6   | 258   | 110 | 3.215 |
| 18.7  | 17.02 | 8   | 360   | 175 | 3.44  |
| 18.1  | 20.22 | 6   | 225   | 105 | 3.46  |

### Targeting Headers with tt\_cell() (Negative Indices)

Use `tt_cell()` with negative row indices to style individual header groups. The column is automatically normalized to the start of the group it falls within.

#### Fill on one group

Apply fill to just the “Engine” group (cols 3-4).

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_cell(-1, 3, fill = "lightyellow")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Color on one group

Apply red text to the “Design” group (cols 5-6).

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_cell(-1, 5, color = "red")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Content override on a group

Replace the label of a header\_above group.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_cell(-1, 3, content = "Motor")
```

| Performance |       | Motor |      | Design |       |
|-------------|-------|-------|------|--------|-------|
| mpg         | qsec  | cyl   | disp | hp     | wt    |
| 21          | 16.46 | 6     | 160  | 110    | 2.62  |
| 21          | 17.02 | 6     | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4     | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6     | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8     | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6     | 225  | 105    | 3.46  |

## Column normalization: any column in group hits the same cell

Targeting column 1 or column 2 both hit the “Performance” group.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_cell(-1, 2, fill = "lightcoral", italic = TRUE)
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Style multiple groups independently

Give each header group a distinct appearance.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_cell(-1, 1, fill = "#cce5ff") |>
  tt_cell(-1, 3, fill = "#d4edda") |>
  tt_cell(-1, 5, fill = "#f8d7da")
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

### tt\_cell on outer stacked header

Target a group in an outer (non-innermost) header\_above row.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2), gap = NULL) |>
  tt_header_above(c("Left" = 3, "Right" = 3), gap = NULL) |>
  tt_cell(-2, 4, fill = "lightyellow", italic = TRUE)
```

| Left |       |     | Right |     |       |
|------|-------|-----|-------|-----|-------|
| A    |       | B   | C     |     |       |
| mpg  | qsec  | cyl | disp  | hp  | wt    |
| 21   | 16.46 | 6   | 160   | 110 | 2.62  |
| 21   | 17.02 | 6   | 160   | 110 | 2.875 |
| 22.8 | 18.61 | 4   | 108   | 93  | 2.32  |
| 21.4 | 19.44 | 6   | 258   | 110 | 3.215 |
| 18.7 | 17.02 | 8   | 360   | 175 | 3.44  |
| 18.1 | 20.22 | 6   | 225   | 105 | 3.46  |

### Content + styling override on stacked header

Replace label and style a group in a stacked configuration.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("A" = 2, "B" = 2, "C" = 2), gap = NULL) |>
  tt_header_above(c("Summary" = 6)) |>
  tt_cell(-2, 1, content = "Overview", color = "navy", bold = FALSE) |>
  tt_cell(-1, 3, fill = "#fff3cd")
```

| Overview |       |     |      |     |       |
|----------|-------|-----|------|-----|-------|
| A        |       | B   |      | C   |       |
| mpg      | qsec  | cyl | disp | hp  | wt    |
| 21       | 16.46 | 6   | 160  | 110 | 2.62  |
| 21       | 17.02 | 6   | 160  | 110 | 2.875 |
| 22.8     | 18.61 | 4   | 108  | 93  | 2.32  |
| 21.4     | 19.44 | 6   | 258  | 110 | 3.215 |
| 18.7     | 17.02 | 8   | 360  | 175 | 3.44  |
| 18.1     | 20.22 | 6   | 225  | 105 | 3.46  |

## Combined: tt\_row + tt\_cell on Header Above

### Row-level style + cell-level override

tt\_row(-1) sets a base style; tt\_cell(-1, ...) overrides for one group.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Design" = 2)) |>
  tt_row(-1, fill = "#e0e0e0", italic = TRUE) |>
  tt_cell(-1, 3, fill = "lightyellow", italic = FALSE)
```

| <i>Performance</i> |       | <i>Engine</i> |      | <i>Design</i> |       |
|--------------------|-------|---------------|------|---------------|-------|
| mpg                | qsec  | cyl           | disp | hp            | wt    |
| 21                 | 16.46 | 6             | 160  | 110           | 2.62  |
| 21                 | 17.02 | 6             | 160  | 110           | 2.875 |
| 22.8               | 18.61 | 4             | 108  | 93            | 2.32  |
| 21.4               | 19.44 | 6             | 258  | 110           | 3.215 |
| 18.7               | 17.02 | 8             | 360  | 175           | 3.44  |
| 18.1               | 20.22 | 6             | 225  | 105           | 3.46  |

### header\_spec defaults + tt\_row + tt\_cell precedence

The header\_spec provides base defaults (bold=TRUE, align=center). tt\_row overrides at row level, tt\_cell overrides at cell level. Later calls win.

```
tt(mt6, rownames = FALSE) |>
  tt_header_above(
```

```

c("Performance" = 2, "Engine" = 2, "Design" = 2),
  color = "gray"
) |>
tt_row(-1, color = "blue") |>
tt_cell(-1, 5, color = "red", bold = FALSE)

```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |

## Full example: stacked headers with mixed targeting

Comprehensive example combining header\_above params, tt\_row, and tt\_cell.

```

tt(mt6, rownames = FALSE) |>
  tt_header_above(
    c("Performance" = 2, "Engine" = 2, "Design" = 2),
    italic = TRUE
  ) |>
  tt_header_above(
    c("Car Data" = 6),
    fill = "navy", color = "white"
  ) |>
  tt_row(-1, fill = "#f0f0f0") |>
  tt_cell(-1, 1, fill = "#cce5ff") |>
  tt_cell(-1, 3, fill = "#d4edda") |>
  tt_cell(-1, 5, fill = "#f8d7da") |>
  tt_cell(-2, 1, content = "All Car Metrics")

```

| All Car Metrics |       |        |      |        |       |
|-----------------|-------|--------|------|--------|-------|
| Performance     |       | Engine |      | Design |       |
| mpg             | qsec  | cyl    | disp | hp     | wt    |
| 21              | 16.46 | 6      | 160  | 110    | 2.62  |
| 21              | 17.02 | 6      | 160  | 110    | 2.875 |



| All Car Metrics |       |        |      |        |       |
|-----------------|-------|--------|------|--------|-------|
| Performance     |       | Engine |      | Design |       |
| mpg             | qsec  | cyl    | disp | hp     | wt    |
| 22.8            | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4            | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7            | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1            | 20.22 | 6      | 225  | 105    | 3.46  |

## Precedence / Last-Write-Wins

### Row after column (row wins)

When row styling is applied after column styling, the row's fill wins on conflicting attributes.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, fill = "lightblue") |>
  tt_row(2, fill = "lightyellow")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Column after row (column wins)

When column styling is applied after row styling, the column's fill wins on conflicting attributes.

```
tt(mt, rownames = FALSE) |>
  tt_row(2, fill = "lightyellow") |>
  tt_column(mpg, fill = "lightblue")
```

| mpg | cyl | disp |
|-----|-----|------|
| 21  | 6   | 160  |
| 21  | 6   | 160  |

|      |   |     |
|------|---|-----|
| 22.8 | 4 | 108 |
| 21.4 | 6 | 258 |
| 18.7 | 8 | 360 |

## Cell overrides both row and column

Cell-level styling always takes highest precedence when applied last.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, fill = "lightblue") |>
  tt_row(2, fill = "lightyellow") |>
  tt_cell(2, 1, fill = "lightgreen")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

## Non-conflicting attributes merge

Different attributes from column, row, and cell merge together.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, bold = TRUE) |>
  tt_row(2, fill = "lightyellow") |>
  tt_cell(2, 1, italic = TRUE)
```

| mpg       | cyl | disp |
|-----------|-----|------|
| 21        | 6   | 160  |
| <b>21</b> | 6   | 160  |
| 22.8      | 4   | 108  |
| 21.4      | 6   | 258  |
| 18.7      | 8   | 360  |

## Data-driven column after row

Data-driven column formatting applied after row styling.

```
df_prec <- data.frame(
  val = c(10, 20, 30, 40, 50),
  bg_val = c("lightcoral", "lightgreen", "lightblue", "lightyellow",
"lightpink"),
  stringsAsFactors = FALSE
)
tt(df_prec, cols = val, rownames = FALSE) |>
  tt_row(2, fill = "white") |>
  tt_column(val, fill = bg_val)
```

| val |
|-----|
| 10  |
| 20  |
| 30  |
| 40  |
| 50  |

## NA Handling

### NA values in data cells

Table with NA values in the data.

```
df_na <- data.frame(
  a = c(1, NA, 3),
  b = c(NA, "hello", NA),
  c = c(TRUE, FALSE, NA),
  stringsAsFactors = FALSE
)
tt(df_na, rownames = FALSE)
```

| a | b     | c     |
|---|-------|-------|
| 1 |       | TRUE  |
|   | hello | FALSE |
| 3 |       |       |

### NA in data-driven style columns

NA values in columns used for data-driven styling.

```
df_na_style <- data.frame(
  val = c(10, 20, 30),
  bg = c("lightblue", NA, "lightyellow"),
  stringsAsFactors = FALSE
)
tt(df_na_style, cols = val, rownames = FALSE) |>
  tt_column(val, fill = bg)
```

| val |
|-----|
| 10  |
| 20  |
| 30  |

## Complex Compositions

### Combined alignment with rotation

Use combined alignment like "left + bottom" with rotation.

```
tt(mt, rownames = FALSE) |>
  tt_row(0, rotate = -45, align = "left + bottom")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### Full-featured table

Combine header\_above, pack\_rows, hlines, vlines, column, row, and cell styles.

```
tt(mtcars[1:10, 1:6], rownames = FALSE) |>
  tt_header_above(c("Performance" = 2, "Engine" = 2, "Other" = 2)) |>
  tt_pack_rows("Group 1", 1, 5) |>
  tt_pack_rows("Group 2", 6, 10) |>
  tt_hline(1) |>
  tt_vline(2, stroke = "1pt + gray") |>
  tt_column(mpg, bold = TRUE, color = "navy") |>
```

```
tt_row(0, fill = "#e0e0e0") |>
tt_cell(1, 1, fill = "lightyellow") |>
tt_style(stroke = TRUE, inset = "4pt")
```

| Performance    |     | Engine |     | Other |       |
|----------------|-----|--------|-----|-------|-------|
| mpg            | cyl | disp   | hp  | drat  | wt    |
| <b>Group 1</b> |     |        |     |       |       |
| 21             | 6   | 160    | 110 | 3.9   | 2.62  |
| 21             | 6   | 160    | 110 | 3.9   | 2.875 |
| 22.8           | 4   | 108    | 93  | 3.85  | 2.32  |
| 21.4           | 6   | 258    | 110 | 3.08  | 3.215 |
| 18.7           | 8   | 360    | 175 | 3.15  | 3.44  |
| <b>Group 2</b> |     |        |     |       |       |
| 18.1           | 6   | 225    | 105 | 2.76  | 3.46  |
| 14.3           | 8   | 360    | 245 | 3.21  | 3.57  |
| 24.4           | 4   | 146.7  | 62  | 3.69  | 3.19  |
| 22.8           | 4   | 140.8  | 95  | 3.92  | 3.15  |
| 19.2           | 6   | 167.6  | 123 | 3.92  | 3.44  |

## pack\_rows and header\_above combined

Use both row grouping and spanning headers.

```
tt(mt10, rownames = FALSE) |>
  tt_header_above(c("A" = 1, "B" = 2)) |>
  tt_pack_rows("First", 1, 5) |>
  tt_pack_rows("Second", 6, 10) |>
  tt_style(stroke = TRUE)
```

| A             | B   |      |
|---------------|-----|------|
| mpg           | cyl | disp |
| <b>First</b>  |     |      |
| 21            | 6   | 160  |
| 21            | 6   | 160  |
| 22.8          | 4   | 108  |
| 21.4          | 6   | 258  |
| 18.7          | 8   | 360  |
| <b>Second</b> |     |      |

| A    | B   |       |
|------|-----|-------|
| mpg  | cyl | disp  |
| 18.1 | 6   | 225   |
| 14.3 | 8   | 360   |
| 24.4 | 4   | 146.7 |
| 22.8 | 4   | 140.8 |
| 19.2 | 6   | 167.6 |

### Multiple tt\_column calls on same column (last wins)

The last call's conflicting attributes take precedence.

```
tt(mt, rownames = FALSE) |>
  tt_column(mpg, color = "red", bold = TRUE) |>
  tt_column(mpg, color = "blue")
```

| mpg  | cyl | disp |
|------|-----|------|
| 21   | 6   | 160  |
| 21   | 6   | 160  |
| 22.8 | 4   | 108  |
| 21.4 | 6   | 258  |
| 18.7 | 8   | 360  |

### colspan and rowspan in same table

Use both column spanning and row spanning cells.

```
df_span <- data.frame(
  a = c("r1", "r2", "r3", "r4"),
  b = c("x", "y", "z", "w"),
  c = c(1, 2, 3, 4),
  d = c(5, 6, 7, 8),
  stringsAsFactors = FALSE
)
tt(df_span, rownames = FALSE) |>
  tt_cell(1, 1, rowspan = 2, content = "Rows 1-2") |>
  tt_cell(3, 2, colspan = 2, content = "Cols 2-3")
```

| a | b | c | d |
|---|---|---|---|
|---|---|---|---|

|          |    |          |   |
|----------|----|----------|---|
| Rows 1-2 | x  | 1        | 5 |
|          | r2 | y        | 2 |
| 6        | r3 | Cols 2-3 |   |
| 3        | 7  | r4       | w |
| 4        | 8  |          |   |

## Color formats

Test different color specification formats.

```
df_colors <- data.frame(
  hex = c("Hex color", "Another hex", "Third hex"),
  named = c("Named Typst", "Also named", "Yet another"),
  rcolor = c("R color", "Another R", "Third R"),
  stringsAsFactors = FALSE
)
tt(df_colors, rownames = FALSE) |>
  tt_column(hex, color = "#ff5733") |>
  tt_column(named, color = "eastern") |>
  tt_column(rcolor, color = "darkgreen") |>
  tt_cell(1, 1, fill = "#e0f0ff") |>
  tt_cell(2, 2, fill = "aqua") |>
  tt_cell(3, 3, fill = "lavender")
```

| hex         | named       | rcolor    |
|-------------|-------------|-----------|
| Hex color   | Named Typst | R color   |
| Another hex | Also named  | Another R |
| Third hex   | Yet another | Third R   |

## Custom pattern

```
tt(mt6, rownames=FALSE) |>
  tt_header_above(c("Performance"=2, "Engine"=2, "Design"=2)) |>
  tt_cell(row=1, column=3, fill='pat')
```

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 21          | 16.46 | 6      | 160  | 110    | 2.62  |
| 21          | 17.02 | 6      | 160  | 110    | 2.875 |

| Performance |       | Engine |      | Design |       |
|-------------|-------|--------|------|--------|-------|
| mpg         | qsec  | cyl    | disp | hp     | wt    |
| 22.8        | 18.61 | 4      | 108  | 93     | 2.32  |
| 21.4        | 19.44 | 6      | 258  | 110    | 3.215 |
| 18.7        | 17.02 | 8      | 360  | 175    | 3.44  |
| 18.1        | 20.22 | 6      | 225  | 105    | 3.46  |