

# Package: ratlas (via r-universe)

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**Title** ATLAS Formatting Functions and Templates

**Version** 0.1.0

**Description** Provides templates, formatting tools, and 'ggplot2' themes tailored for the Accessible Teaching, Learning, and Assessment Systems (ATLAS) organization. These templates facilitate the creation of topic guides and technical reports, while the formatting functions enable users to customize numbers and tables to meet specific requirements. Additionally, the themes ensure a uniform visual style across graphics.

**License** GPL-3

**VignetteBuilder** knitr

**URL** <https://ratlas.netlify.app>, <https://github.com/atlas-aai/ratlas>

**BugReports** <https://github.com/atlas-aai/ratlas/issues>

**Depends** R (>= 3.5.0)

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<i>ratlas-package</i>	<i>ratlas:</i>
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## Description

The *ratlas* package serves three main purposes:

## Details

- Project templates for topic guides and technical reports
- Functions for formatting
- Consistent *ggplot2* themes

## Author(s)

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## See Also

Useful links:

- <https://ratlas.netlify.app>
- <https://github.com/atlas-aai/ratlas>
- Report bugs at <https://github.com/atlas-aai/ratlas/issues>

---

apa\_words                      *Write APA Words*

---

### Description

Confused about whether a number should be written out ("five") or use numerals ("5")? Use this function! Most useful for R Markdown in-text writing.

### Usage

```
apa_words(x, ordinal = FALSE)
```

### Arguments

x	The number to be printed
ordinal	Do you want the ordinal numbering (e.g., 1st, 6th, etc.)

### Value

A character string

### Examples

```
apa_words(5)
apa_words(16)
apa_words(6, ordinal = TRUE)
```

---

append\_summary                      *Append row and/or column summaries*

---

### Description

Add row and/or column summaries (e.g., total counts) to a data frame.

### Usage

```
append_summary(df, ..., row = TRUE, col = TRUE, .f = sum, args = NULL)
```

### Arguments

df	A data frame to append summaries to.
...	Unquoted names of columns to be included in the summary
row	logical indicating whether a summary row should be added (i.e., summarizing each column)
col	logical indicating whether a summary column should be added (i.e., summarizing each row)
.f	Function to use for calculating summaries
args	A named list of arguments to pass to .f

**Value**

A data frame with the summary row and/or column appended

**Examples**

```
set.seed(9416)
df <- tibble::tibble(char = letters[1:5], x = rnorm(5), y = rnorm(5))
append_summary(df, x, y, row = TRUE, col = TRUE, .f = sum)
append_summary(df, x, y, row = FALSE, .f = mean)
```

---

combine_n_pct	<i>Combine N and Percent Columns for Accessibility</i>
---------------	--

---

**Description**

Combine N and Percent Columns for Accessibility

**Usage**

```
combine_n_pct(df, n, pct, name, remove = TRUE, na_replace = NULL)
```

**Arguments**

df	A data frame that has already been sent to <code>fmt_table()</code>
n	The unquoted name of the column containing count values
pct	The unquoted name of the column containing percentage values
name	The name of the new combined column to be created
remove	Logical. Should the existing n and pct columns be removed?
na_replace	Character string representing how missing values should be represented.

**Value**

A data frame.

**Examples**

```
pcts <- tibble::tibble(Program = c("A", "B", "C", "D", "E", "F"),
  n = 0:5,
  p = 0.5 * (0:5))
pcts |>
  fmt_table() |>
  combine_n_pct(n = n, pct = p, name = "States")
```

---

`d1malias`*DLM Aliases*

---

**Description**

R variable aliases for commonly used vector and values.

**Usage**`d1m_ll``d1m_grades``d1m_complexity`**Format**

An object of class character of length 7.

An object of class character of length 16.

An object of class character of length 4.

**Details**

`d1m_ll` contains all linkage level names for ELA, mathematics, and science.

`d1m_grades` contains all DLM grade levels.

`d1m_complexity` contains all complexity band names for ELA, mathematics, science, writing, and communication.

---

`d1m_ll_info`*DLM Linkage Level Information*

---

**Description**

A dataset contain information for how linkage levels are stored in the database, their official names, and their values for scoring.

**Usage**`d1m_ll_info`

**Format**

A data frame with 13 rows and 4 variables:

- subject: The subject area for the linkage level
- linkage\_level: The linkage level name as it is stored in the database
- name: The official linkage level name (public facing)
- value: The value used for scoring (i.e., the linkage level order, within subject)

---

fmt_italic	<i>Format a String with Italics for HTML or Latex Output</i>
------------	--

---

**Description**

Format a String with Italics for HTML or Latex Output

**Usage**

```
fmt_italic(string, indicator = "*", html = TRUE)
```

**Arguments**

string	The character vector to add italics to.
indicator	The indicator for which words should be italicized
html	Logical for whether the output should be HTML. If FALSE, Latex output is provided.

**Value**

A character vector

**Examples**

```
fmt_italic("Make *this* italic.", html = TRUE)
fmt_italic("Make *this* italic.", html = FALSE)
```

---

 fmt\_kbl
 

---



---

*Wrapper function of kableExtra::kbl*


---

## Description

Create a kable table with some reasonable ATLAS defaults.

## Usage

```
fmt_kbl(
  x,
  booktabs = TRUE,
  linesep = "",
  centering = FALSE,
  escape = FALSE,
  position = "left",
  latex_options = "HOLD_position",
  ...
)
```

## Arguments

x	For <code>kable()</code> , x is an R object, which is typically a matrix or data frame. For <code>kables()</code> , a list with each element being a returned value from <code>kable()</code> .
booktabs	T/F for whether to enable the booktabs format for tables. I personally would recommend you turn this on for every latex table except some special cases.
linesep	By default, in booktabs tables, kable insert an extra space every five rows for clear display. If you don't want this feature or if you want to do it in a different pattern, you can consider change this option. The default is <code>c(", ", ", ", "\addlinespace')</code> . Also, if you are not using booktabs, but you want a cleaner display, you can change this to <code>"</code> .
centering	T (default)/F. Whether to center tables in the table environment.
escape	Boolean; whether to escape special characters when producing HTML or LaTeX tables. When <code>escape = FALSE</code> , you have to make sure that special characters will not trigger syntax errors in LaTeX or HTML.
position	This is the "real" or say floating position for the latex table environment. The kable only puts tables in a table environment when a caption is provided. That is also the reason why your tables will be floating around if you specify captions for your table. Possible choices are h (here), t (top, default), b (bottom) and p (on a dedicated page).
latex_options	A character vector for LaTeX table options. Please see package vignette for more information. Possible options include <code>basic</code> , <code>striped</code> , <code>hold_position</code> , <code>HOLD_position</code> , <code>scale_down</code> , <code>scale_up</code> & <code>repeat_header</code> . <code>striped</code> will add alternative row colors to the table. It will imports LaTeX package <code>xcolor</code> if enabled. <code>hold_position</code> will "hold" the floating table to the exact position. It



is useful when the LaTeX table is contained in a table environment after you specified captions in `kable()`. It will force the table to stay in the position where it was created in the document. A stronger version: `HOLD_position` requires the `float` package and specifies `[H]`. `scale_down` is useful for super wide table. It will automatically adjust the table to page width. `repeat_header` in only meaningful in a `longtable` environment. It will let the header row repeat on every page in that long table.

... Additional parameters passed to `kableExtra::kbl()`.

### Value

A `kable` object.

### Examples

```
fmt_kbl(mtcars[, 1:3], align = c("r", "c", "r"),
  col.names = c("Column 1", "Column 2", "Column 3"),
  caption = "Example Table Title")
```

---

fmt_kbl_header	<i>Wrapper function of kableExtra::row_spec</i>
----------------	---

---

### Description

Apply some default formatting to the header row of a `kable` table. Should be called after any calls to `kableExtra::column_spec()`.

### Usage

```
fmt_kbl_header(
  kable_input,
  row = 0,
  align = "c",
  extra_css = "border-bottom: 0.16em solid #111111",
  ...
)
```

### Arguments

<code>kable_input</code>	Output of <code>knitr::kable()</code> with format specified
<code>row</code>	A numeric value or vector indicating which row(s) to be selected. You don't need to count in header rows or group labeling rows.
<code>align</code>	A character string for cell alignment. For HTML, possible values could be <code>l</code> , <code>c</code> , <code>r</code> plus <code>left</code> , <code>center</code> , <code>right</code> , <code>justify</code> , <code>initial</code> and <code>inherit</code> while for LaTeX, you can only choose from <code>l</code> , <code>c</code> & <code>r</code> .
<code>extra_css</code>	Extra css text to be passed into the cells of the row. Note that it's not for the whole row.
...	Additional arguments passed to <code>kableExtra::row_spec()</code>

**Value**

A kable object.

**Examples**

```
fmt_kbl(mtcars[, 1:3], align = c("r", "c", "r"),
        col.names = c("Column 1", "Column 2", "Column 3"),
        caption = "Example Table Title") |>
kableExtra::column_spec(1, width = "20em") |>
fmt_kbl_header()
```

---

 fmt\_table

*Center and Decimal Align Tables*


---

**Description**

Automatic formatting for tables that should "just work" for most use cases. For more fine-grained control, see [formatting](#) and [padding](#).

**Usage**

```
fmt_table(
  df,
  dec_dig = 1,
  prop_dig = 3,
  corr_dig = 3,
  output = NULL,
  fmt_small = TRUE,
  max_value = NULL,
  keep_zero = FALSE
)
```

**Arguments**

df	A data frame or tibble to be formatted for printing in output.
dec_dig	The number of decimal places to include for numbers, e.g., dec_dig = 1 for 16.5.
prop_dig	The number of decimal places to include for numbers bounded between [0,1], e.g., prop_dig = 2 for .35.
corr_dig	The number of decimal places to include for numbers bounded between [-1,1], e.g., corr_dig = 3 for .205.
output	The output format of the table. One of "latex" or "html". Automatically pulled from document output type if not specified.
fmt_small	Indicator for replacing zero with < (e.g., .000 becomes <.001). Default is TRUE.

max_value	If <code>fmt_small</code> is TRUE and a <code>max_value</code> is supplied, any value greater than the <code>max_value</code> is replaced with <code>&gt;</code> (e.g., if <code>max_value = 50</code> , then <code>60</code> becomes <code>&gt;49.9</code> ). The number of digits depends on either <code>dec_digits</code> , <code>prop_dig</code> , or <code>corr_dig</code> .
keep_zero	If <code>fmt_small</code> is TRUE, whether to preserve true 0s (e.g., <code>0.0000001</code> becomes <code>&lt;.001</code> , but <code>0.0000000</code> stays <code>.000</code> ).

**Value**

A tibble with the same rows and columns as `df`, with numbers formatted consistently and padded for alignment when printed.

**See Also**

Other formatters: [formatting](#), [padding](#)

**Examples**

```
pcts <- tibble::tibble(n = 0:5, p = 0.5 * (0:5))
pcts |> fmt_table()
```

---

font_an	<i>Arial Narrow font name R variable aliases</i>
---------	--

---

**Description**

```
font_an == "Arial Narrow"
```

**Usage**

```
font_an
```

**Format**

length 1 character vector

## Description

These formatting functions are used to format numerical values in a consistent manner. This is useful for printing numbers inline with text, as well as for formatting tables. Many of the included formatting functions were adapted from TJ Mahr's [printy](#) package.

## Usage

```
fmt_count(x, big_interval = 3L, big_mark = ",")

fmt_digits(
  x,
  digits = 3,
  fmt_small = FALSE,
  max_value = NULL,
  keep_zero = FALSE
)

fmt_leading_zero(x)

fmt_minus(x, output = NULL)

fmt_replace_na(x, replacement = "&mdash;")

fmt_corr(x, digits, output = NULL)

fmt_prop(x, digits, fmt_small = TRUE, keep_zero = FALSE)

fmt_prop_pct(x, digits = 0, fmt_small = TRUE)
```

## Arguments

<code>x</code>	Number or number string to be formatted
<code>big_interval</code>	Interval indicating where to place numeric dividers
<code>big_mark</code>	Character used as mark between big interval before the decimal
<code>digits</code>	Number of decimal places to retain
<code>fmt_small</code>	Indicator for replacing zero with < (e.g., <code>.000</code> becomes <code>&lt;.001</code> ). Default is <code>TRUE</code> .
<code>max_value</code>	If <code>fmt_small</code> is <code>TRUE</code> and a <code>max_value</code> is supplied, any value greater than the <code>max_value</code> is replaced with > (e.g., if <code>max_value = 50</code> , then <code>60</code> becomes <code>&gt;49.9</code> ). The number of digits depends on <code>digits</code> .
<code>keep_zero</code>	If <code>fmt_small</code> is <code>TRUE</code> , whether to preserve true 0s (e.g., <code>0.0000001</code> becomes <code>&lt;.001</code> , but <code>0.0000000</code> stays <code>.000</code> ).

output	The output type for the rendered document. One of "latex" or "html".
replacement	The value to use when replacing missing values

## Details

`fmt_count()` is a wrapper for `base::prettyNum()`. Prints a number with a `big_mark` between every `big_interval`.

`fmt_digits()` is a wrapper for `base::sprintf()`. Prints a number with `digits` number of decimal places, without losing trailing zeros, as happens with `base::round()`.

`fmt_leading_zero()` removes the leading zero for decimal values.

`fmt_minus()` replaces hyphens with the HTML minus sign (`&minus;`).

`fmt_replace_na()` replaces NA values with a specified replacement. This is useful for formatting tables, when blanks are not desired. The default behavior is to replace missing values with an em-dash (`&mdash;`).

`fmt_prop_pct()` formats proportions as percentages. This takes a number bounded between 0 and 1, multiplies it by 100, and then rounds to the specified number of digits using `fmt_digits()`.

Two additional formatters are provided to format numbers according to the American Psychological Association (APA) style guide. The 7th edition of the APA style guide specifies that numbers bounded between  $[-1, 1]$  should not include the leading zero (section 6.36; APA, 2020). This is the case for many types of numbers commonly used by ATLAS including correlations, proportions, probabilities, and  $p$ -values. The `fmt_corr()` function is used to format values bounded between  $[-1, 1]$ . Digits are first rounded to the specified number of digits using `fmt_digits()`, and then leading zeros are removed using `fmt_leading_zero()` and negative signs are replaced with `fmt_minus()`. The `fmt_prop` is very similar, but is intended for values between  $[0, 1]$ . This function also wraps `fmt_digits()` and `fmt_leading_zero()`. However, `fmt_prop()` also replaces small values to avoid values of 0 (e.g., `.00` is replaced with `< .01`).

## Value

The updated character object of the same size as `x`.

## References

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). doi:10.1037/0000165000

## See Also

Other formatters: `fmt_table()`, `padding`

## Examples

```
test_cor <- cor(mtcars[, 1:4])
as.character(round(test_cor[1:4, 3], 2))
fmt_digits(test_cor[1:4, 3], 2)

fmt_digits(test_cor[1:4, 3], 2) %>%
  fmt_leading_zero()
```

```

fmt_digits(test_cor[1:4, 3], 2) %>%
  fmt_minus()

fmt_digits(c(test_cor[1:4, 3], NA_real_), 2) %>%
  fmt_replace_na(replacement = "&mdash;")

fmt_corr(test_cor[1:4, 3], 2)

fmt_prop(c(0.001, 0.035, 0.683), digits = 2)

```

---

ggsave2

*Save a ggplot2 graphic*


---

## Description

This is a wrapper around `ggplot2::ggsave()` with some ATLAS-specific defaults. The aspect ratio is fixed to 0.618 (the **golden ratio**) unless the height is manually defined. Plots are automatically spell checked and warnings are returned if there are possible mistakes. Finally, plots saved as a pdf have the fonts embedded using `extrafont::embed_fonts()`.

## Usage

```

ggsave2(
  plot = ggplot2::last_plot(),
  filename,
  device = NULL,
  path = NULL,
  width = 7,
  height = NULL,
  units = "in",
  dir = c("h", "v"),
  dpi = "retina",
  embed_fonts = FALSE,
  ...
)

```

## Arguments

<code>plot</code>	Plot to save, defaults to last plot displayed.
<code>filename</code>	File name to create on disk.
<code>device</code>	Device to use. Can either be a device function (e.g. <code>png</code> ), or one of "eps", "ps", "tex" (pictex), "pdf", "jpeg", "tiff", "png", "bmp", "svg" or "wmf" (windows only). If NULL (default), the device is guessed based on the filename extension.
<code>path</code>	Path of the directory to save plot to: path and filename are combined to create the fully qualified file name. Defaults to the working directory.

width	Plot size in units ("in", "cm", or "mm").
height	Plot size in units ("in", "cm", or "mm"). If not supplied, uses $0.618 * \text{width}$ when <code>dir = "h"</code> and $1.618 * \text{width}$ when <code>dir = "v"</code> .
units	Units of plot size ("in", "cm", or "mm"). Default is inches.
dir	Orientation of the plot. One of <code>h</code> (default) for horizontal or <code>v</code> for vertical.
dpi	Plot resolution. Also accepts a string input: "retina" (320), "print" (300), or "screen" (72). Applies only to raster output types.
embed_fonts	Logical. Use Ghostscript to embed fonts in a PDF graphic?
...	Additional arguments passed to <code>ggplot2::ggsave()</code>

**Value**

None. Called for side effects.

**Examples**

```
library(ggplot2)
p <- ggplot(mtcars, aes(mpg, wt)) +
  geom_point()

ggsave2(p, "/mtcars.pdf", path = tempdir())
ggsave2(p, "/mtcars.png", path = tempdir())
```

---

 inc

---

*Generate a section for the yaml input*


---

**Description**

Generate a section for the yaml input

**Usage**

```
inc(input, sep = "\n\n ")
```

**Arguments**

`input` a file containing markdown text  
`sep` a separator for each line.

**Value**

a string

**Examples**

```
## Not run:
inc("front-matter/preface.Rmd")

## End(Not run)
```

---

measr\_pdf

*Create an R Markdown PDF measr Report*


---

**Description**

This is a function called in the output of the yaml of the Rmd file to specify using the standard measr report document formatting.

**Usage**

```
measr_pdf(...)
```

**Arguments**

```
... Arguments to be passed to [bookdown::pdf_document2]
```

**Value**

A modified pdf\_document2 with the standard tech report formatting.

**Examples**

```
## Not run:
output: ratlas::measr_pdf

## End(Not run)
```

---

only\_if

*Only If*


---

**Description**

Adverb for conditionally skipping steps in a piped workflow.

**Usage**

```
only_if(condition)
```

**Arguments**

```
condition Logical condition to be evaluated
```



**Value**

None. Called for side effects.

**Author(s)**

David Robinson, <https://twitter.com/drob/status/785880369073500161>

**Examples**

```
d <- tibble::as_tibble(mtcars)
d %>% only_if(TRUE)(dplyr::filter)(mpg > 25)

d %>% only_if(FALSE)(dplyr::filter)(mpg > 25)
```

padding

*Table Padding***Description**

A family of functions for formatting numbers and then padding with spaces so that table columns can be both centered and decimal aligned.

**Usage**

```
pad_counts(x, digits = 0L)
```

```
pad_prop(x, digits, fmt_small = TRUE, keep_zero = FALSE, output = NULL)
```

```
pad_corr(x, digits, output = NULL)
```

```
pad_decimal(
  x,
  digits,
  fmt_small = FALSE,
  max_value = NULL,
  keep_zero = FALSE,
  output = NULL
)
```

**Arguments**

x	Number or number string to be formatted
digits	Number of decimal places to retain
fmt_small	Indicator for replacing zero with < (e.g., .000 becomes < .001). Default is TRUE.
keep_zero	If fmt_small is TRUE, whether to preserve true 0s (e.g., 0.0000001 becomes <.001, but 0.0000000 stays .000).

output	The output type for the rendered document. One of "latex" or "html".
max_value	If <code>fmt_small</code> is TRUE and a <code>max_value</code> is supplied, any value greater than the <code>max_value</code> is replaced with <code>&gt;</code> (e.g., if <code>max_value = 50</code> , then <code>60</code> becomes <code>&gt;49.9</code> ). The number of digits depends on <code>digits</code> .

### Details

`pad_counts` should be used to pad integer numbers. This wraps `base::format()` to add a comma separator.

`pad_prop` should be used to pad decimal numbers between `[0,1]`. This wraps `fmt_prop()` to round to a specified number of `digits` and optionally remove the leading zero.

`pad_corr` should be used to pad decimal numbers between `[-1,1]`. This wraps `fmt_corr()`, and is similar to `pad_prop`, but accounts for negative numbers when adding padding.

`pad_decimal` should be used to pad decimal number that are not bounded. This wraps `fmt_digits()` to round to a specified number of decimal places.

### Value

A character vector of the same length as `x`.

### See Also

Other formatters: `fmt_table()`, `formatting`

### Examples

```
pad_counts(sample(1:1000, size = 20))
pad_prop(c(0.001, runif(5)), digits = 2)
pad_corr(runif(10, -1, 1), digits = 2)
pad_decimal(runif(10, 1, 100), digits = 1)
```

---

palette\_atlas      *Official color palette for ATLAS*

---

### Description

Official brand colors for Accessible Teaching, Learning, and Assessment Systems.

### Usage

```
palette_atlas
palette_atlas_black
```

**Format**

An object of class character of length 6.

An object of class character of length 6.

---

palette_lcrost	<i>Color palette proposed by Lisa Charlotte Rost</i>
----------------	--

---

**Description**

A colorblind friendly palette taken from the article [What to consider when visualizing data for colorblind readers](#)

**Usage**

```
palette_lcrost
```

```
palette_lcrost_black
```

**Format**

An object of class character of length 8.

An object of class character of length 8.

---

palette_okabeito	<i>Color palette proposed by Okabe and Ito</i>
------------------	--

---

**Description**

Two color palettes taken from the article "Color Universal Design" by Okabe palette\_okabeito contains a gray color, while palette\_okabeito\_black contains black instead.

**Usage**

```
palette_okabeito
```

```
palette_okabeito_black
```

**Format**

An object of class character of length 8.

An object of class character of length 8.

---

rat_cap_words	<i>Capitalization of words</i>
---------------	--------------------------------

---

**Description**

Capitalize the first letters of words in a string. Can either use sentence case (i.e., only the first word capitalized; `all = FALSE`) or title case (i.e., all words capitalized; `all = TRUE`).

**Usage**

```
rat_cap_words(x, all = FALSE)
```

**Arguments**

<code>x</code>	A character string
<code>all</code>	Logical. If TRUE, the first letter of every word is capitalized. If FALSE (the default), only the first word is capitalized.

**Value**

A character string with the specified capitalization.

**Examples**

```
name <- c("zip code", "state", "final count")
vapply(name, rat_cap_words, character(1))
vapply(name, rat_cap_words, character(1), all = TRUE)
```

---

scale_colour_atlas	<i>ATLAS color scale</i>
--------------------	--------------------------

---

**Description**

This is a qualitative scale using the official ATLAS brand colors. See [palette\\_atlas](#) for details.

**Arguments**

<code>...</code>	common discrete scale parameters: <code>name</code> , <code>breaks</code> , <code>labels</code> , <code>na.value</code> , <code>limits</code> , <code>guide</code> , and <code>aesthetics</code> . See <a href="#">ggplot2::discrete_scale</a> for more details.
<code>use_black</code>	If TRUE, scale includes black, otherwise includes gray.
<code>order</code>	Numeric vector listing the order in which the colors should be used. Default is 1:8.
<code>darken</code>	Relative amount by which the scale should be darkened (for positive values) or lightened (for negative values).
<code>alpha</code>	Alpha transparency level of the color. Default is no transparency.

**Value**

A color scale for use in plots created with `ggplot2::ggplot()`.

**Examples**

```
library(ggplot2)
ggplot(iris, aes(Sepal.Length, Sepal.Width, color = Species)) +
  geom_point() + scale_color_atlas()
ggplot(iris, aes(Sepal.Length, fill = Species)) +
  geom_density(alpha = 0.7) + scale_fill_atlas(order = c(1, 3, 5))
```

---

scale\_colour\_lcross     *Lisa Charlotte Rost color scale*

---

**Description**

This is a color-blind friendly, qualitative scale with eight different colors. See [palette\\_lcross](#) for details. The palette was first described in [this blog post](#).

**Arguments**

...	common discrete scale parameters: name, breaks, labels, na.value, limits, guide, and aesthetics. See <a href="#">ggplot2::discrete_scale</a> for more details.
use_black	If TRUE, scale includes black, otherwise includes gray.
order	Numeric vector listing the order in which the colors should be used. Default is 1:8.
darken	Relative amount by which the scale should be darkened (for positive values) or lightened (for negative values).
alpha	Alpha transparency level of the color. Default is no transparency.

**Value**

A color scale for use in plots created with `ggplot2::ggplot()`.

**Examples**

```
library(ggplot2)
ggplot(iris, aes(Sepal.Length, Sepal.Width, color = Species)) +
  geom_point() + scale_color_lcross()
ggplot(iris, aes(Sepal.Length, fill = Species)) +
  geom_density(alpha = 0.7) + scale_fill_lcross(order = c(1, 3, 5))
```

---

scale\_colour\_okabeito *Okabe-Ito color scale*

---

### Description

This is a color-blind friendly, qualitative scale with eight different colors. See [palette\\_okabeito](#) for details.

### Arguments

...	common discrete scale parameters: name, breaks, labels, na.value, limits, guide, and aesthetics. See <a href="#">ggplot2::discrete_scale</a> for more details.
use_black	If TRUE, scale includes black, otherwise includes gray.
order	Numeric vector listing the order in which the colors should be used. Default is 1:8.
darken	Relative amount by which the scale should be darkened (for positive values) or lightened (for negative values).
alpha	Alpha transparency level of the color. Default is no transparency.

### Value

A color scale for use in plots created with [ggplot2::ggplot\(\)](#).

### Examples

```
library(ggplot2)
ggplot(iris, aes(Sepal.Length, Sepal.Width, color = Species)) +
  geom_point() + scale_color_okabeito()
ggplot(iris, aes(Sepal.Length, fill = Species)) +
  geom_density(alpha = 0.7) + scale_fill_okabeito(order = c(1, 3, 5))
```

---

set\_theme

*Set default ggplot2 theme*

---

### Description

Sets the default color schemes, fonts, and theme for ggplot2 plots. The default color scheme for continuous variables is the [viridis](#) color palette, and the default color scheme for discrete variables is the [Okabe Ito](#) palette.

**Usage**

```
set_theme(
  font = "Arial Narrow",
  discrete = c("okabeito", "atlas", "ggplot2"),
  continuous = c("viridis", "magma", "inferno", "plasma", "cividis", "ggplot2"),
  ...
)
```

**Arguments**

font	The base font family to be used in plots.
discrete	Color palette for discrete colors. One of "okabeito" (default), "atlas", or "ggplot2".
continuous	Color palette for continuous scales. One of "magma", "inferno", "plasma", "viridis" (default), or "cividis", or "ggplot2".
...	Additional arguments to pass to theme functions.

**Value**

None. Called for side effects.

**Examples**

```
set_theme("Arial Narrow")
```

---

slides\_html

---

*Create an HTML Slide Deck with R Markdown*


---

**Description**

This is a function called in the output of the YAML of the Rmd file to specify using the standard DLM tech report pdf document formatting.

**Usage**

```
slides_html(...)
```

**Arguments**

...	Arguments to be passed to [xaringan::moon_reader]
-----	---

**Value**

A modified mood\_reader with ATLAS branding applied.

**Examples**

```
## Not run:  
output: ratlas::slides_html  
  
## End(Not run)
```

---

techreport\_gitbook      *Create an R Markdown GitBook Tech Report*

---

**Description**

This is a function called in the output of the yaml of the Rmd file to specify using the standard DLM tech report pdf document formatting.

**Usage**

```
techreport_gitbook(...)
```

**Arguments**

```
...                    Arguments to be passed to [bookdown:::gitbook]
```

**Value**

A modified gitbook with the standard tech report formatting.

**Examples**

```
## Not run:  
output: ratlas::techreport_gitbook  
  
## End(Not run)
```

---

techreport\_pdf              *Create an R Markdown PDF Document Tech Report*

---

**Description**

This is a function called in the output of the yaml of the Rmd file to specify using the standard DLM tech report pdf document formatting.

**Usage**

```
techreport_pdf(apa6 = FALSE, ...)
```



**Arguments**

apa6                   Should the old  
...                    Arguments to be passed to [bookdown::pdf\_document2]

**Value**

A modified pdf\_document2 with the standard tech report formatting.

**Examples**

```
## Not run:  
output: ratlas::techreport_pdf  
  
## End(Not run)
```

---

theme\_atlas

*ATLAS ggplot2 theme for consistent graphics*

---

**Description**

Based on hrbrthemes::[theme\\_ipsum](#).

**Usage**

```
theme_atlas(  
  base_family = "Arial Narrow",  
  base_size = 11.5,  
  plot_title_family = base_family,  
  plot_title_size = 18,  
  plot_title_face = "bold",  
  plot_title_margin = 10,  
  subtitle_family = base_family,  
  subtitle_size = 12,  
  subtitle_face = "plain",  
  subtitle_margin = 15,  
  strip_text_family = base_family,  
  strip_text_size = 12,  
  strip_text_face = "plain",  
  caption_family = base_family,  
  caption_size = 9,  
  caption_face = "italic",  
  caption_margin = 10,  
  axis_text_size = 9,  
  axis_title_family = subtitle_family,  
  axis_title_size = base_size,  
  axis_title_face = "plain",  
  axis_title_just = "cm",
```

```

plot_margin = ggplot2::margin(30, 30, 30, 30),
grid_col = "#cccccc",
grid = TRUE,
axis_col = "#cccccc",
axis = FALSE,
ticks = FALSE
)

```

## Arguments

base_family, base_size	base font family and size	
plot_title_family, plot_title_margin	plot_title_face,	plot_title_size,
plot title family, face, size and margin		
subtitle_family, subtitle_margin	subtitle_face, subtitle_size	
plot subtitle family, face and size		
strip_text_family, strip_text_size	strip_text_face,	
facet label font family, face and size		
caption_family, caption_size	caption_face, caption_margin	
plot caption family, face, size and margin		
axis_text_size	font size of axis text	
axis_title_family, axis_title_size	axis_title_face,	
axis title font family, face and size		
axis_title_just	axis title font justification, one of [blmcr]	
plot_margin	plot margin (specify with <code>ggplot2::margin()</code> )	
grid_col, axis_col	grid & axis colors; both default to #cccccc	
grid	panel grid (TRUE, FALSE, or a combination of X, x, Y, y)	
axis	add x or y axes? TRUE, FALSE, "xy"	
ticks	ticks if TRUE add ticks	

## Value

A theme for use in plots created with `ggplot2::ggplot()`.

## Examples

```

## Not run:
library(ggplot2)
library(dplyr)

# seminal scatterplot
ggplot(mtcars, aes(mpg, wt)) +

```

```

geom_point() +
labs(x = "Fuel efficiency (mpg)", y = "Weight (tons)",
     title = "Seminal ggplot2 scatterplot example",
     subtitle = "A plot that is only useful for demonstration purposes",
     caption = "Brought to you by the letter 'g'") +
theme_atlas()

# seminal bar chart

update_geom_font_defaults()

count(mpg, class) %>%
  ggplot(aes(class, n)) +
  geom_col() +
  geom_text(aes(label=n), nudge_y=3) +
  labs(x = "Fuel efficiency (mpg)", y = "Weight (tons)",
       title = "Seminal ggplot2 bar chart example",
       subtitle = "A plot that is only useful for demonstration purposes",
       caption = "Brought to you by the letter 'g'") +
  theme_atlas(grid = "Y") +
  theme(axis.text.y = element_blank())

## End(Not run)

```

---

topicguide\_docx

---

*Create an R Markdown Word Document Topic Guide*


---

## Description

This is a function called in the output of the yaml of the Rmd file to specify using the standard DLM topic guide word document formatting.

## Usage

```
topicguide_docx(...)
```

## Arguments

... Arguments to be passed to [bookdown::word\_document2]

## Value

A modified word\_document2 with the standard topic guide formatting.

## Examples

```

## Not run:
output: ratlas::topicguide_docx

## End(Not run)

```

---

topicguide_pdf	<i>Create an R Markdown PDF Topic Guide</i>
----------------	---

---

**Description**

This is a function called in the output of the yaml of the Rmd file to specify using the standard DLM topic guide document formatting.

**Usage**

```
topicguide_pdf(...)
```

**Arguments**

```
... Arguments to be passed to [bookdown::pdf_document2]
```

**Value**

A modified pdf\_document2 with the standard tech report formatting.

**Examples**

```
## Not run:  
output: ratlas::topicguide_pdf  
  
## End(Not run)
```

---

topicguide_rdocx	<i>Create an R Markdown Word Document Topic Guide</i>
------------------	---

---

**Description**

This is a function called in the output of the yaml of the Rmd file to specify using the standard DLM topic guide word document formatting.

**Usage**

```
topicguide_rdocx(...)
```

**Arguments**

```
... Arguments to be passed to [bookdown::word_document2]
```

**Value**

A modified word\_document2 with the standard topic guide formatting.

**Examples**

```
## Not run:  
output: ratlas::topicguide_rdocx  
  
## End(Not run)
```

---

```
update_geom_font_defaults
```

*Update matching font defaults for text geoms*

---

**Description**

Updates `ggplot2::geom_label` and `ggplot2::geom_text` font defaults

**Usage**

```
update_geom_font_defaults(  
  family = "Arial Narrow",  
  face = "plain",  
  size = 3.5,  
  color = "#2b2b2b"  
)
```

**Arguments**

family, face, size, color  
font family name, face, size and color

**Value**

None. Called for side effects.

**Examples**

```
# updates font to Arial Narrow, size to 3.5, and color to #2b2b2b by default  
update_geom_font_defaults()
```

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