Package ‘hrbrthemes’

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Type Package
Title Additional Themes, Theme Components and Utilities for ‘ggplot2’
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Date 2020-03-05
Maintainer Bob Rudis <bob@rud.is>
Description A compilation of extra ‘ggplot2’ themes, scales and utilities, including a
spell check function for plot label fields and an overall emphasis on typography.
is also included along with a copy of the ‘IBM’ ‘Plex Sans’ <https://github.com/IBM/type>,
‘Titillium Web’ <https://fonts.google.com/specimen/Titillium+Web>, and
‘Public Sans’ <https://github.com/uswds/public-sans/> fonts
are also included to support their respective typography-oriented themes.

URL http://github.com/hrbrmstr/hrbrthemes
BugReports https://github.com/hrbrmstr/hrbrthemes/issues
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License MIT + file LICENSE
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R topics documented:

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Impallari Type [cph] (Public Sans Font),
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flush_ticks 

Makes axis text labels flush on the ends!

Description

A convenience function intended for basic, fixed-scale plots only (i.e. does not handle free scales in facets).

You need to pass in a ggplot2 object to this function. It can’t be +’d in a chain of geoms, coords, scales, themes, etc. It also builds the plot (but does not display it) so if the plt takes a while (i.e. has lots of data or transforms) this will also take a while.

Usage

flush_ticks(gg, flush = "XY", plot = TRUE, cat = TRUE)

Arguments

  
  gg: ggplot2 plot object
  flush: either "X" or "Y" or "XY" to flush individual or both axes. Default: both.
  plot: if FALSE then the ggplot object will be returned invisibly
  cat: if TRUE then display theme() statements and copy them to the clipboard

Value

  ggplot2 object with theme() elements added

Note

  Intended for basic, fixed-scale plots only (i.e. does not handle free scales in facets).

font_an

Arial Narrow font name R variable aliases

Description

font_an == "Arial Narrow"

Usage

font_an

Format

  length 1 character vector
font_es  
**Econ Sans Condensed font name R variable aliases**

**Description**

font_es == "EconSansCndLig"
font_es_bold == "EconSansCndBol"
font_es_light == "EconSansCndLig"

**Usage**

font_es

font_es_bold

font_es_light

**Format**

length 1 character vector

**Note**

font_es_bold (a.k.a. "EconSansCndBol") is not available on Windows and will throw a warning if used in plots.

font_es_light (a.k.a. "EconSansCndLig") is not available on Windows and will throw a warning if used in plots.

---

font_ps  
**PlexSans font name R variable aliases**

**Description**

font_ps == "IBMPlexSans"
font_ps_light == "IBMPlexSans-Light"

**Usage**

font_ps

font_ps_light

**Format**

length 1 character vector
### font_pub

**Note**

font_ps_light (a.k.a. "IBM Plex Sans-Light") is not available on Windows and will throw a warning if used in plots.

<table>
<thead>
<tr>
<th>font_pub</th>
<th>Public Sans font name R variable aliases</th>
</tr>
</thead>
</table>

#### Description

<table>
<thead>
<tr>
<th>font_pub</th>
<th>&quot;Public Sans&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>font_pub_bold</td>
<td>&quot;Public Sans Bold&quot;</td>
</tr>
<tr>
<td>font_pub_light</td>
<td>&quot;Public Sans Light&quot;</td>
</tr>
<tr>
<td>font_pub_thin</td>
<td>&quot;Public Sans Thin&quot;</td>
</tr>
</tbody>
</table>

#### Usage

- font_pub
- font_pub_bold
- font_pub_light
- font_pub_thin

#### Format

- length 1 character vector

**Note**

font_pub_bold (a.k.a. "Public Sans Bold") is not available on Windows and will throw a warning if used in plots.

<table>
<thead>
<tr>
<th>font_rc</th>
<th>Roboto Condensed font name R variable aliases</th>
</tr>
</thead>
</table>

#### Description

<table>
<thead>
<tr>
<th>font_rc</th>
<th>&quot;Roboto Condensed&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>font_fc_light</td>
<td>&quot;Roboto Condensed Light&quot;</td>
</tr>
</tbody>
</table>
Usage

font_rc

font_rc_light

Format

length 1 character vector

Note

font_rc_light (a.k.a. "Roboto Condensed Light") is not available on Windows and will throw a warning if used in plots.

---

tinyhand_web

Description

font_th == "BF Tiny Hand"

Usage

font_th

Format

length 1 character vector

---

titillium_web

Description

font_tw == "Titillium Web"

font_tw_light == "Titillium Web Bold"

font_tw_light == "Titillium Web Light"

Usage

font_tw

font_tw_bold

font_tw_light
ft_cols

Format

length 1 character vector

Note

font_tw_light (a.k.a. "Titillium Web Bold") is not available on Windows and will throw a warning if used in plots.

font_tw_light (a.k.a. "Titillium Web Light") is not available on Windows and will throw a warning if used in plots.

---

ft_cols

_An FT color palette_

Description

FT color palette

Usage

ft_cols

ft_text_col

Format

An object of class list of length 9.

Note

don’t forget you can use scales::alpha() with these colors

---

ft_geom_defaults

_Change geom defaults from black to custom lights for the FT theme_

Description

Change geom defaults from black to custom lights for the FT theme

Usage

ft_geom_defaults()
**ft_pal**

*A bright qualitative color palette*

**Description**

A bright qualitative color palette

**Usage**

ft_pal()

**Examples**

```r
library(scales)
scales::show_col(ft_pal()(8))
```

---

**gg_check**

*Spell check ggplot2 plot labels*

**Description**

Due to the way ggplot2 objects are created, this has to be used in a standalone context.

**Usage**

gg_check(gg, dict, ignore)

**Arguments**

- `gg` : ggplot2 object
- `dict` : a dictionary object or string which can be passed to `hunspell::dictionary`. Defaults to `hunspell::dictionary("en_US")`
- `ignore` : character vector with additional approved words added to the dictionary. Defaults to `hunspell::en_stats`

**Details**

Current functionality only looks for misspelled words in the labels of ggplot2 objects. When misspelled words are found, a message is printed with the words and the label that they are in. No messages will be printed if there are no misspelled words.

**Value**

the object that was passed in
Examples

```r
library(ggplot2)

df <- data.frame(x=c(20, 25, 30), y=c(4, 4, 4), txt=c("One", "Two", "Three"))

# not piping
ggplot(mtcars, aes(mpg, wt)) +
  geom_point() +
  labs(x="This is some txt", y="This is more text",
       title="Thisy is a titlle",
       subtitle="This is a subtityle",
       caption="This is a captien") -> gg

gg_check(gg)
```

---

**hrbrthemes-exports**  
**hrbrthemes exported operators**

**Description**

The following functions are imported and then re-exported from the hrbrthemes package to enable use of the magrittr pipe operator with no additional library calls

---

**import_econ_sans**  
**Import Roboto Condensed font for use in charts**

**Description**

Roboto Condensed is a trademark of Google.

**Usage**

```r
import_econ_sans()
```

**Details**

There is an option `hrbrthemes::loadfonts` which – if set to `TRUE` – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

**Note**

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.
**import_plex_sans**

**Import IBM Plex Sans font for use in charts**

**Description**

IBM Plex Sans is a trademark of IBM and distributed under the SIL Open Font License, Version 1.1.

**Usage**

```r
import_plex_sans()
```

**Details**

There is an option `hrbrthemes.loadfonts` which – if set to TRUE – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

**Note**

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.

---

**import_public_sans**

**Import Public Sans font for use in charts**

**Description**

Public Sans is Copyright 2015 Impallari Type and licensed under the SIL Open Font License, Version 1.1.

**Usage**

```r
import_public_sans()
```

**Details**

There is an option `hrbrthemes.loadfonts` which – if set to TRUE – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

**Note**

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.
import_roboto_condensed

Import Roboto Condensed font for use in charts

Description

Roboto Condensed is a trademark of Google.

Usage

import_roboto_condensed()

Details

There is an option hrbrthemes::loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Note

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.

import_tinyhand

Import Titillium Web font for use in charts

Description

Titillium Web is a trademark of Google.

Usage

import_tinyhand()

Details

There is an option hrbrthemes::loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Note

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.
import_titillium_web  Import Titillium Web font for use in charts

**Description**

Titillium Web is a trademark of Google.

**Usage**

import_titillium_web()

**Details**

There is an option hrbrthemes.loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

**Note**

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.

ipsum  ipsum R markdown template

**Description**

Template for creating an R markdown document with an emphasis on typography

**Usage**

ipsum(
  number_sections = FALSE,
  fig_width = 7,
  fig_height = 5,
  fig_retina = if (!fig_caption) 2,
  fig_caption = FALSE,
  dev = "png",
  smart = TRUE,
  self_contained = TRUE,
  highlight = "default",
  mathjax = "default",
  extra_dependencies = NULL,
  css = NULL,
  includes = NULL,
keep_md = FALSE,
lib_dir = NULL,
md_extensions = NULL,
pandoc_args = NULL,
toc = FALSE,
toc_depth = 2,
...
)

Arguments

number_sections  TRUE to number section headings
fig_width  Default width (in inches) for figures
fig_height  Default height (in inches) for figures
fig_retina  Scaling to perform for retina displays (defaults to 2, which currently works for all widely used retina displays). Set to NULL to prevent retina scaling. Note that this will always be NULL when keep_md is specified (this is because fig_retina relies on outputting HTML directly into the markdown document).
fig_caption  TRUE to render figures with captions
dev  Graphics device to use for figure output (defaults to png)
smart  Produce typographically correct output, converting straight quotes to curly quotes, --- to em-dashes, -- to en-dashes, and . . . to ellipses.
self_contained  Produce a standalone HTML file with no external dependencies, using data: URIs to incorporate the contents of linked scripts, stylesheets, images, and videos. Note that even for self contained documents MathJax is still loaded externally (this is necessary because of its size).
mathjax  Include mathjax. The "default" option uses an https URL from a MathJax CDN. The "local" option uses a local version of MathJax (which is copied into the output directory). You can pass an alternate URL or pass NULL to exclude MathJax entirely.
extra_dependencies, ...
extra_dependencies, ...
css  One or more css files to include
includes  Named list of additional content to include within the document (typically created using the includes function).
keep_md  Keep the markdown file generated by knitting.
lib_dir  Directory to copy dependent HTML libraries (e.g. jquery, bootstrap, etc.) into. By default this will be the name of the document with _files appended to it.
md_extensions  Markdown extensions to be added or removed from the default definition or R Markdown. See the rmarkdown_format for additional details.
**pandoc_args**
Additional command line options to pass to pandoc

**toc, toc_depth**
TOC params

---

### ipsum_pal

**A muted, qualitative color palette**

**Description**

A muted, qualitative color palette

**Usage**

`ipsum_pal()`

**Examples**

```r
library(scales)
scales::show_col(ipsum_pal()(9))
```

---

### ipsum_pdf

**ipsum R markdown template for PDF output**

**Description**

Template for creating an R markdown documents with an emphasis on typography

**Usage**

`ipsum_pdf(...)`

**Arguments**

`...` Arguments to `rmarkdown::pdf_document`

**Value**

R Markdown output format to pass to `render`
modern_geom_defaults  Change geom defaults from black to white for the modern theme

Description
Change geom defaults from black to white for the modern theme

Usage
modern_geom_defaults()

scale_colour_ft  Discrete color & fill scales based on the FT palette

Description
See ft_pal().

Usage
scale_colour_ft(...) 

scale_color_ft(...) 

scale_fill_ft(...)

Arguments
... Arguments passed on to ggplot2::discrete_scale
aesthetics The names of the aesthetics that this scale works with.
scale_name The name of the scale that should be used for error messages associated with this scale.
palette A palette function that when called with a single integer argument (the number of levels in the scale) returns the values that they should take (e.g., scales::hue_pal()).
name The name of the scale. Used as the axis or legend title. If waiver(), the default, the name of the scale is taken from the first mapping used for that aesthetic. If NULL, the legend title will be omitted.
b breaks One of:
• NULL for no breaks
• waiver() for the default breaks (the scale limits)
• A character vector of breaks
• A function that takes the limits as input and returns breaks as output
labels One of:
scale_colour_ipsum

Discrete color & fill scales based on the ipsum palette

Description

See ipsum_pal().

Usage

scale_colour_ipsum(...)  
scale_color_ipsum(...)  
scale_fill_ipsum(...)

Arguments

...  

Arguments passed on to ggplot2::discrete_scale

aesthetics  The names of the aesthetics that this scale works with.

scale_name  The name of the scale that should be used for error messages associated with this scale.

palette  A palette function that when called with a single integer argument (the number of levels in the scale) returns the values that they should take (e.g., scales::hue_pal()).

name  The name of the scale. Used as the axis or legend title. If waiver(), the default, the name of the scale is taken from the first mapping used for that aesthetic. If NULL, the legend title will be omitted.
**scale_x_percent**

X & Y scales with opinionated pre-sets for percent & comma label formats

---

**Description**

The _comma ones set comma format for axis text and expand=c(0, 0) (you need to set limits).

**Usage**

```r
scale_x_percent(
  name = waiver(),
  breaks = waiver(),
  minor_breaks = waiver(),
  guide = waiver(),
  n.breaks = NULL,
  labels,
  limits = NULL,
  expand = c(0, .01, 0),
  oob = censor,
  na.value = NA_real_,
)```
trans = "identity",
position = "bottom",
sec.axis = waiver(),
accuracy = 1,
scale = 100,
prefix = "",
suffix = "%",
big.mark = " "
decimal.mark = ".",
trim = TRUE,
...
}

scale_y_percent(
  name = waiver(),
  breaks = waiver(),
  minor_breaks = waiver(),
  guide = waiver(),
  n.breaks = NULL,
  labels,
  limits = NULL,
  expand = c(0.01, 0),
  oob = censor,
  na.value = NA_real_,
  trans = "identity",
  position = "left",
  sec.axis = waiver(),
  accuracy = 1,
  scale = 100,
  prefix = "",
  suffix = "%",
  big.mark = " "
  decimal.mark = ".",
  trim = TRUE,
  ...
}

scale_x_comma(
  name = waiver(),
  breaks = waiver(),
  minor_breaks = waiver(),
  guide = waiver(),
  n.breaks = NULL,
  labels,
  limits = NULL,
  expand = c(0.01, 0),
  oob = censor,
  na.value = NA_real_,
  trans = "comma",
  position = "bottom",
  sec.axis = waiver(),
  accuracy = 1,
  scale = 100,
  prefix = "",
  suffix = "%",
  big.mark = " "
  decimal.mark = ".",
  trim = TRUE,
  ...
Arguments

name The name of the scale. Used as axis or legend title. If `waiver()`, the default, the name of the scale is taken from the first mapping used for that aesthetic. If `NULL`, the legend title will be omitted.

breaks One of:
- `NULL` for no breaks
- `waiver()` for the default breaks computed by the transformation object
- A numeric vector of positions
- A function that takes the limits as input and returns breaks as output

minor_breaks One of:
• NULL for no minor breaks
• waiver() for the default breaks (one minor break between each major break)
• A numeric vector of positions
• A function that given the limits returns a vector of minor breaks.

guide
guide A function used to create a guide or its name. See guides() for more information.

n.breaks
An integer guiding the number of major breaks. The algorithm may choose a slightly different number to ensure nice break labels. Will only have an effect if breaks = waiver(). Use NULL to use the default number of breaks given by the transformation.

labels
Specifying overrides the default format (i.e. you really don’t want to do that). NULL means no labels.

limits
A numeric vector of length two providing limits of the scale. Use NA to refer to the existing minimum or maximum.

expand
same as in ggplot2

oob
Function that handles limits outside of the scale limits (out of bounds). The default replaces out of bounds values with NA.

na.value
If na.translate = TRUE, what value aesthetic value should missing be displayed as? Does not apply to position scales where NA is always placed at the far right.

trans
Either the name of a transformation object, or the object itself. Built-in transformations include "asn", "atanh", "boxcox", "exp", "identity", "log", "log10", "log1p", "log2", "logit", "probability", "probit", "reciprocal", "reverse" and "sqrt".

position
The position of the axis. "left" or "right" for vertical scales, "top" or "bottom" for horizontal scales

sec.axis
specify a secondary axis

accuracy, scale, prefix, suffix, big.mark, decimal.mark, trim
See [scales::comma_format()] or [scales::percent_format()]

... passed on to [scales::comma_format()] or [scales::percent_format()]

Details
The _percent ones set precent format for axis text and expand=c(0, 0) (you need to set limits).

theme_ft_rc
A precise & pristine ggplot2 theme with opinionated defaults and an emphasis on typography

Description
You should import_robo_to_condensed() first and also install the fonts on your system before trying to use this theme.
Usage

```r
theme_ft_rc(
  base_family = "Roboto Condensed",
  base_size = 11.5,
  plot_title_family = base_family,
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else "Roboto Condensed Light",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else "Roboto Condensed Light",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = margin(30, 30, 30, 30),
  grid = TRUE,
  axis = FALSE,
  ticks = FALSE
)
```

```r
theme_modern_rc(
  base_family = "Roboto Condensed",
  base_size = 11.5,
  plot_title_family = base_family,
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else "Roboto Condensed Light",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else "Roboto Condensed Light",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = margin(30, 30, 30, 30),
  grid = TRUE,
  axis = FALSE,
  ticks = FALSE
)
```
theme_ft_rc

  "Roboto Condensed Light",
caption_size = 9,
caption_face = "plain",
caption_margin = 10,
axis_text_size = base_size,
axis_title_family = base_family,
axis_title_size = 9,
axis_title_face = "plain",
axis_title_just = "rt",
plot_margin = margin(30, 30, 30, 30),
grid = TRUE,
axis = FALSE,
ticks = FALSE
)

theme_ipsum_rc(
  base_family = "Roboto Condensed",
  base_size = 11.5,
  plot_title_family = base_family,
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else
    "Roboto Condensed Light",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "Roboto Condensed" else
    "Roboto Condensed Light",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = margin(30, 30, 30, 30),
  panel_spacing = grid::unit(2, "lines"),
  grid_col = "#cccccc",
  grid = TRUE,
  axis_col = "#cccccc",
  axis = FALSE,
  ticks = FALSE
)
theme_ft_rc

Arguments

- base_family, base_size
  base font family and size
- plot_title_family, plot_title_face, plot_title_size, plot_title_margin
  plot title family, face, size and margin
- subtitle_family, subtitle_face, subtitle_size
  plot subtitle family, face and size
- subtitle_margin
  plot subtitle margin bottom (single numeric value)
- strip_text_family, strip_text_face, strip_text_size
  facet label font family, face and size
- caption_family, caption_face, caption_size, caption_margin
  plot caption family, face, size and margin
- axis_text_size
  font size of axis text
- axis_title_family, axis_title_face, axis_title_size
  axis title font family, face and size
- axis_title_just
  axis title font justification, one of [blmcrt]
- plot_margin
  plot margin (specify with ggplot2::margin)
- 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
- panel_spacing
  panel spacing (use unit())
- grid_col
  grid color
- axis_col
  axis color

Details

There is an option hrbrthemes.loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Why Roboto Condensed?

It’s free, has tolerable kerning pairs and multiple weights. It’s also different than Arial Narrow and the fonts most folks use in ggplot2 charts.

Examples

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

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

# seminal bar chart

# note: make this font_rc on Windows
update_geom_font_defaults(family=font_rc_light)

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_ipsum_rc(grid="Y") +
theme(axis.text.y=element_blank())

## End(Not run)
```

### theme_ipsum

A precise & pristine *ggplot2* theme with opinionated defaults and an emphasis on typography

**Description**

Also has a "dark" / "modern" version for the new RStudio theme

**Usage**

```r
theme_ipsum(
    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 = base_size,
axis_title_family = subtitle_family,
axis_title_size = 9,
axis_title_face = "plain",
axis_title_just = "rt",
plot_margin = 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_face, plot_title_size, plot_title_margin  
plot title family, face, size and margin
subtitle_family, subtitle_face, subtitle_size  
plot subtitle family, face and size
subtitle_margin  
plot subtitle margin bottom (single numeric value)
strip_text_family, strip_text_face, strip_text_size  
facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin  
plot caption family, face, size and margin
axis_text_size  
font size of axis text
axis_title_family, axis_title_face, axis_title_size  
axis title font family, face and size
axis_title_just  
axis title font justification, one of [blmcr]
plot_margin  
plot margin (specify with ggplot2::margin())
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

Why Arial Narrow?

First and foremost, Arial Narrow is generally installed by default or readily available on any modern system, so it’s "free"-ish; plus, it is a condensed font with solid default kerning pairs and geometric numbers.
Building upon theme_ipsum

The function is setup in such a way that you can customize your own one by just wrapping the call and changing the parameters. See source for examples.

Gotchas

There are distinctions between font names and various devices. Names that work for display graphics devices and bitmap ones such as png may not work well for PostScript or PDF ones. You may need two versions of a font-based theme function for them to work in a particular situation. This situation usually only arises when using a newer font with many weights but somewhat irregular internal font name patterns.

There is an option hrbrthemes.loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Examples

```r
## 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_ipsum()

# 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_ipsum(grid="Y") +
  theme(axis.text.y=element_blank())

## End(Not run)
```
theme_ipsum_es

A precise & pristine ggplot2 theme with opinionated defaults and an emphasis on typography

Description

You should `import_econ_sans()` first and also install the fonts on your system before trying to use this theme.

Usage

theme_ipsum_es(
  base_family = "EconSansCndReg",
  base_size = 11.5,
  plot_title_family = "EconSansCndBol",
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "EconSansCndLig" else "EconSansCndLig",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "EconSansCndLig" else "EconSansCndLig",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = margin(30, 30, 30, 30),
  panel_spacing = grid::unit(2, "lines"),
  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_face, plot_title_size, plot_title_margin**: plot title family, face, size and margin
- **subtitle_family, subtitle_face, subtitle_size**: plot subtitle family, face and size
- **subtitle_margin**: plot subtitle margin bottom (single numeric value)
- **strip_text_family, strip_text_face, strip_text_size**: facet label font family, face and size
- **caption_family, caption_face, caption_size, caption_margin**: plot caption family, face, size and margin
- **axis_text_size**: font size of axis text
- **axis_title_family, axis_title_face, axis_title_size**: axis title font family, face and size
- **axis_title_just**: axis title font justification (one of [blmcrt])
- **plot_margin**: plot margin (specify with `ggplot2::margin`)
- **panel_spacing**: panel spacing (use `unit()`) - Use `unit()` to specify the unit
- **grid_col**: grid color
- **grid**: panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
- **axis_col**: axis color
- **axis**: add x or y axes? TRUE, FALSE, "xy"
- **ticks**: ticks if TRUE add ticks

Details

There is an option `hrbrthemes.loadfonts` which – if set to TRUE – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Why Econ Sans Condensed?

It’s free, has tolerable kerning pairs and multiple weights. It’s also different than Arial Narrow and the fonts most folks use in ggplot2 charts.

Examples

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

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

A precise & pristine \texttt{ggplot2} theme with opinionated defaults and an emphasis on typography

Description

You should \texttt{import_plex_sans()} first and also install the fonts on your system before trying to use this theme.

Usage

\begin{verbatim}
theme_ipsum_ps(
  base_family = "IBMPlexSans",
  base_size = 11.5,
  plot_title_family = "IBMPlexSans-Bold",
  plot_title_size = 18,
  plot_title_face = "plain",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "IBMPlexSans" else "IBMPlexSans-Light",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = "IBMPlexSans-Medium",
)
\end{verbatim}
strip_text_size = 12,
strip_text_face = "plain",
caption_family = if (.Platform$OS.type == "windows") "IBMPlexSans" else "IBMPlexSans-Thin",
caption_size = 9,
caption_face = "plain",
caption_margin = 10,
axis_text_size = 9,
axis_title_family = base_family,
axis_title_size = 9,
axis_title_face = "plain",
axis_title_just = "rt",
plot_margin = 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_face, plot_title_size, plot_title_margin
  plot title family, face, size and margin
subtitle_family, subtitle_face, subtitle_size
  plot subtitle family, face and size
subtitle_margin
  plot subtitle margin bottom (single numeric value)
strip_text_family, strip_text_face, strip_text_size
  facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin
  plot caption family, face, size and margin
axis_text_size
  font size of axis text
axis_title_family, axis_title_face, axis_title_size
  axis title font family, face and size
axis_title_just
  axis title font justification one of [blmcr]
plot_margin
  plot margin (specify with ggplot2::margin)
grid_col
  grid color
grid
  panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
axis_col
  axis color
axis
  add x or y axes? TRUE, FALSE, "xy"
ticks
  ticks if TRUE add ticks
Details

There is an option hrbrthemes::loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Why IBM Plex Sans?

It’s free, has tolerable kerning pairs and multiple weights. It’s also different “not Helvetica”.

Examples

```r
## 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_ipsum_rc()

# seminal bar chart

# note: make this font_rc on Windows
update_geom_font_defaults(family=font_rc_light)

count(mpg, class) %>%
  ggplot(aes(class, n)) +
  geom_col() +
  geom_text(aes(label=n), nudge_y=3) +
  labs(x="Fuel effiiency (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_ipsum_rc(grid="Y") +
  theme(axis.text.y=element_blank())

## End(Not run)
```

Description

You should `import_public_sans()` first and also install the fonts on your system before trying to use this theme.
Usage

```r
theme_ipsum_pub(
  base_family = "Public Sans",
  base_size = 10.5,
  plot_title_family = if (.Platform$OS.type == "windows") "Public Sans" else
    "Public Sans Bold",
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "Public Sans Thin" else
    "Public Sans Thin",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "Public Sans Thin" else
    "Public Sans Thin",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = 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_face`, `plot_title_size`, `plot_title_margin` plot title family, face, size and margin
- `subtitle_family`, `subtitle_face`, `subtitle_size` plot subtitle family, face and size
- `subtitle_margin` plot subtitle margin bottom (single numeric value)
- `strip_text_family`, `strip_text_face`, `strip_text_size` facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin
plot caption family, face, size and margin
axis_text_size  font size of axis text
axis_title_family, axis_title_face, axis_title_size
axis title font family, face and size
axis_title_just
axis title font justificationk one of [blmcrt]
plot_margin  plot margin (specify with ggplot2::margin)
grid_col  grid color
grid  panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
axis_col  axis color
axis  add x or y axes? TRUE, FALSE, "xy"
ticks  ticks if TRUE add ticks

Details

There is an option hrbrthemes.loadfonts which – if set to TRUE – will call extrafont::loadfonts() to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Why Public Sans?

See the design principles.

Examples

```r
## 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_ipsum_pub()

# seminal bar chart
update_geom_font_defaults(family=font_pub)

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",
       caption="Brought to you by the letter 'g'") +
  theme_ipsum_pub()
```
## theme_ipsum_tw

A precise & pristine ggplot2 theme with opinionated defaults and an emphasis on typography

### Description

You should `import_titillium_web()` first and also install the fonts on your system before trying to use this theme.

### Usage

```r
theme_ipsum_tw(
  base_family = "Titillium Web",
  base_size = 10.5,
  plot_title_family = if (.Platform$OS.type == "windows") "Titillium Web Bold" else "Titillium Web",
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
  subtitle_family = if (.Platform$OS.type == "windows") "Titillium Web Light" else "Titillium Web",
  subtitle_size = 13,
  subtitle_face = "plain",
  subtitle_margin = 15,
  strip_text_family = base_family,
  strip_text_size = 12,
  strip_text_face = "plain",
  caption_family = if (.Platform$OS.type == "windows") "Titillium Web Light" else "Titillium Web",
  caption_size = 9,
  caption_face = "plain",
  caption_margin = 10,
  axis_text_size = base_size,
  axis_title_family = base_family,
  axis_title_size = 9,
  axis_title_face = "plain",
  axis_title_just = "rt",
  plot_margin = margin(30, 30, 30, 30),
  grid_col = "#cccccc",
  grid = TRUE,
)
theme_ipsum_tw

```r
axis_col = "#cccccc",
axis = FALSE,
ticks = FALSE
```

**Arguments**

- `base_family`, `base_size`
  - base font family and size
- `plot_title_family`, `plot_title_face`, `plot_title_size`, `plot_title_margin`
  - plot title family, face, size and margin
- `subtitle_family`, `subtitle_face`, `subtitle_size`
  - plot subtitle family, face and size
- `subtitle_margin`
  - plot subtitle margin bottom (single numeric value)
- `strip_text_family`, `strip_text_face`, `strip_text_size`
  - facet label font family, face and size
- `caption_family`, `caption_face`, `caption_size`, `caption_margin`
  - plot caption family, face, size and margin
- `axis_text_size`
  - font size of axis text
- `axis_title_family`, `axis_title_face`, `axis_title_size`
  - axis title font family, face and size
- `axis_title_just`
  - axis title font justification (one of `blmcrt`)
- `plot_margin`
  - plot margin (specify with `ggplot2::margin`)
- `grid_col`
  - grid color
- `grid`
  - panel grid (TRUE, FALSE, or a combination of `X`, `x`, `Y`, `y`)
- `axis_col`
  - axis color
- `axis`
  - add x or y axes? TRUE, FALSE, "xy"
- `ticks`
  - ticks if TRUE add ticks

**Details**

There is an option `hrbrthemes.loadfonts` which – if set to TRUE – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

**Why Titillium Web?**

It’s free, has tolerable kerning pairs and multiple weights. It’s also different than Arial Narrow and the fonts most folks use in ggplot2 charts.
Examples

```r
## 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_ipsum_rc()

# seminal bar chart
# note: make this font_rc on Windows
update_geom_font_defaults(family=font_rc_light)

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_ipsum_tw(grid="Y") +
  theme(axis.text.y=element_blank())

## End(Not run)
```

theme_tinyhand

---

Something you should never use.

Description

You should import_tinyhand() first and also install the fonts on your system before trying to use this theme.

Usage

```r
theme_tinyhand(  
  base_family = font_th,
  base_size = 10.5,
  plot_title_family = font_th,
  plot_title_size = 18,
  plot_title_face = "bold",
  plot_title_margin = 10,
)```
subtitle_family = font_th,
subtitle_size = 13,
subtitle_face = "plain",
subtitle_margin = 15,
strip_text_family = base_family,
strip_text_size = 12,
strip_text_face = "plain",
caption_family = font_th,
caption_size = 9,
caption_face = "plain",
caption_margin = 10,
axis_text_size = base_size,
axis_title_family = base_family,
axis_title_size = 9,
axis_title_face = "plain",
axis_title_just = "rt",
plot_margin = 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_face, plot_title_size, plot_title_margin
   plot title family, face, size and margin
subtitle_family, subtitle_face, subtitle_size
   plot subtitle family, face and size
subtitle_margin
   plot subtitle margin bottom (single numeric value)
strip_text_family, strip_text_face, strip_text_size
   facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin
   plot caption family, face, size and margin
axis_text_size
   font size of axis text
axis_title_family, axis_title_face, axis_title_size
   axis title font family, face and size
axis_title_just
   axis title font justification one of [blmrcrt]
plot_margin
   plot margin (specify with ggplot2::margin)
grid_col
   grid color
grid
   panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
axis.col  axis color
axis      add x or y axes? TRUE, FALSE, "xy"
ticks     ticks if TRUE add ticks

Details

There is an option `hrbrthemes.loadfonts` which – if set to `TRUE` – will call `extrafont::loadfonts()` to register non-core fonts with R PDF & PostScript devices. If you are running under Windows, the package calls the same function to register non-core fonts with the Windows graphics device.

Why Titillium Web?

It’s free, has tolerable kerning pairs and multiple weights. It’s also different than Arial Narrow and the fonts most folks use in ggplot2 charts.

---

update_geom_font_defaults

Update matching font defaults for text geoms

Description

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

Usage

```r
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
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