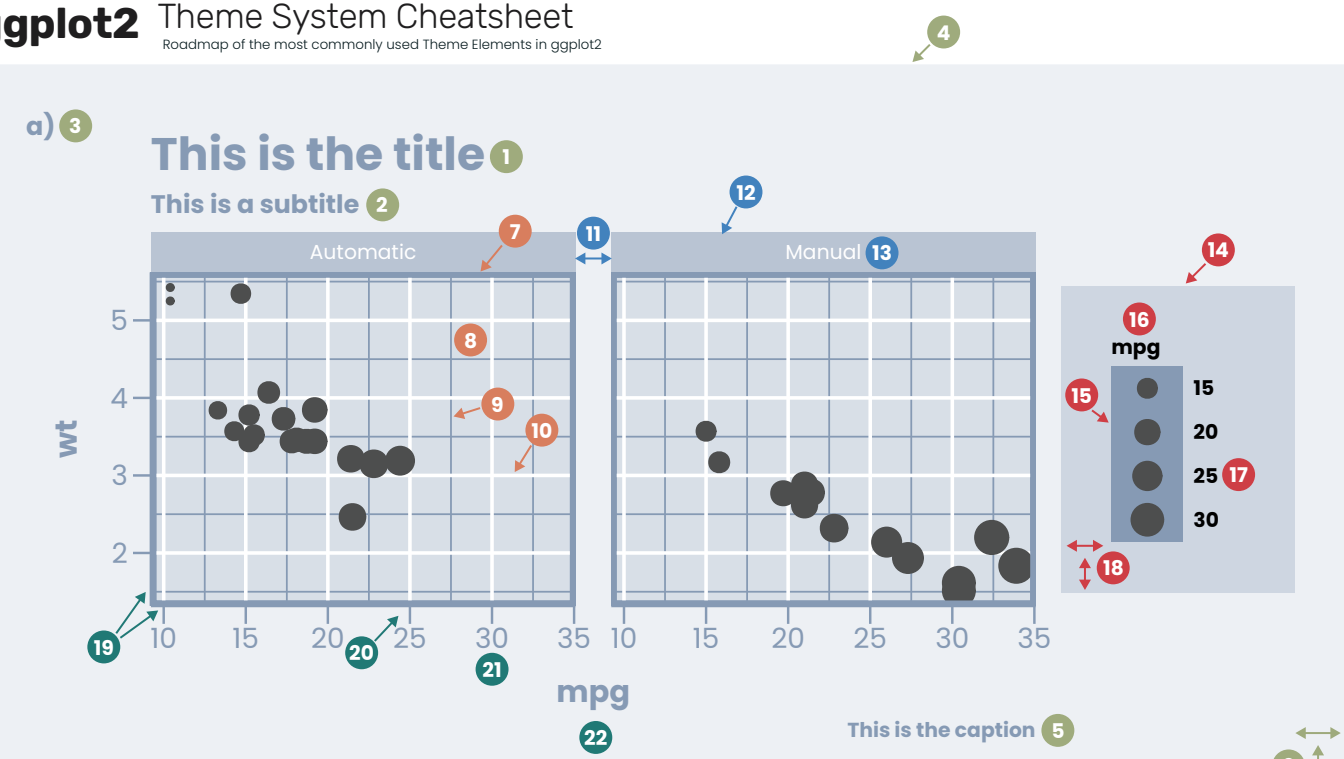
ggplot2 Theme System Cheatsheet

Roadmap of the most commonly used Theme Elements in ggplot2

ggplot2 version 3.3.5
@TheDataInkLab



Plot elements

1. **plot.title** element_text()
2. **plot.subtitle** element_text()
3. **plot.tag** element_text()
   plot.tag.position *"topleft", "top", "topright", "left", "right", "bottomleft", "bottom", "bottomright"* or a coordinate
4. **plot.background** element_rect()
5. **plot.caption** element_text()
6. **plot.margin** margin()

Panel elements

7. **panel.border** element_rect()
8. **panel.background** element_rect()
9. **panel.grid.minor** element_line()
10. **panel.grid.major** element_line()
- **aspect.ratio** numeric

Facet elements

11. **panel.spacing** unit()
12. **strip.background** element_rect()
13. **strip.text** element_text()

Legend elements

14. **legend.background** element_rect()
15. **legend.key** element_rect()
16. **legend.title** element_text()
    legend.title.align Numeric between 0 to 1, where: 0=left, 1=right
17. **legend.text** element_text()
    legend.text.align Numeric between 0 to 1, where: 0=left, 1=right
18. **legend.margin** margin()
- **legend.position** *"none", "left", "right", "bottom", "top",* or two-element numeric vector

Axis elements

19. **axis.line** element_line()
20. **axis.ticks** element_line()
    axis.ticks.length unit()
21. **axis.text** element_text()
22. **axis.title** element_text()

Global

These affect all elements of same type in the plot. Useful to define defaults.

text element_text()	**line** element_text()
rect element_rect()	**title** element_text()

Element functions

element_text()

(font) family
(font) face
(font) colour
(font) size (in points)
hjust [0..1] (0=left, 1=right)
vjust [0..1] (0=bottom, 1=top)
angle (in degrees)
lineheight (as ratio of fontcase)
margin
  margin (t, r, b, l)
  #remember trouble

element_line()

(line) colour
size (width of line)
linetype
  An integer (0:8)
  A name ("blank", "solid", "dashed", "dotted", "dotdash", "longdash", "twodash")
lineend
  "round", "butt", "square"
arrow
  An arrow specification: arrow()

element_rect()

fill
colour
size (width of border)
linetype (of border) (see element_line)

element_blank()

Eliminates element
Doesn't take parameters

Note.

Of those elements that have two components, the way to access is by appending .x or .y at the end. e.g. axis.line.y will change only the "y" axis line. Idem with "x". If nothing is specified (e.g axis.line), both elements (x and y) will be changed.

This material is part of the course: Learn ggplot2 in R for Data Visualization
https://www.udemy.com/course/learn-ggplot2-in-r-for-data-viz/?referralCode=E98592E4E943F800ECBB

See the full list of Theme Elements here: https://ggplot2.tidyverse.org/reference/theme.html