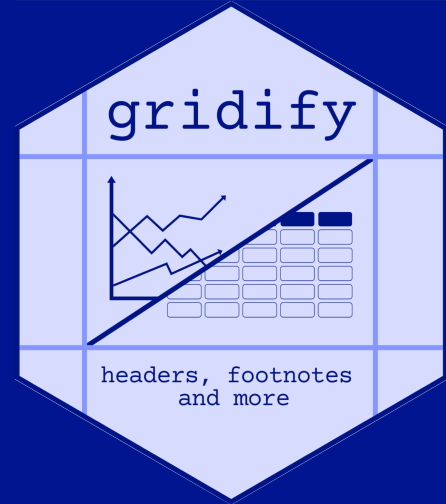


PP16

gridify: Enrich Figures and Tables with Custom Headers and Footers



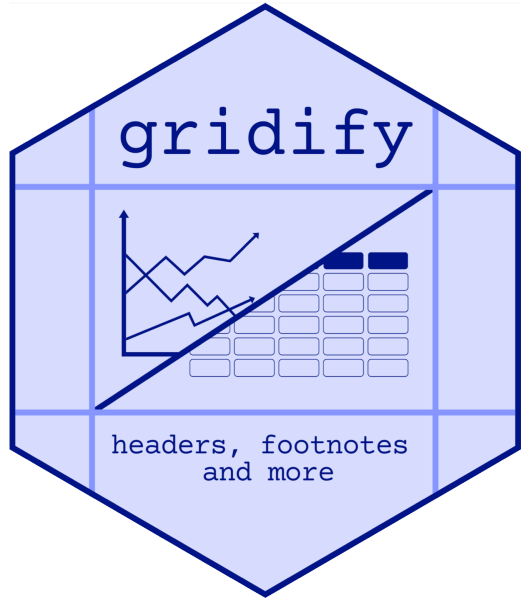
Maciej Nasiński, Alexandra Wall, Jennifer Winick-Ng
UCB S.A.



gridify

In the pharmaceutical industry, as well as many other fields that rely heavily on data reporting, there is often a need to create figures and tables with specific contextual text elements. These may include **headers, titles, subtitles, captions, footnotes and more**.

gridify is a flexible R package that simplifies and standardizes this process. Built on base R's **grid** system, it allows users to add text elements around figures and tables using predefined (e.g. pharma layout) or fully custom layouts. **gridify** supports a wide range of input types including **grob**, **gtable**, **ggplot**, **flectable**, **gt**, and base R plots and multiple output formats such as **pdf**, **tiff**, **png**, and **jpg**, while integrating smoothly with **Quarto** and **R Markdown** workflows.

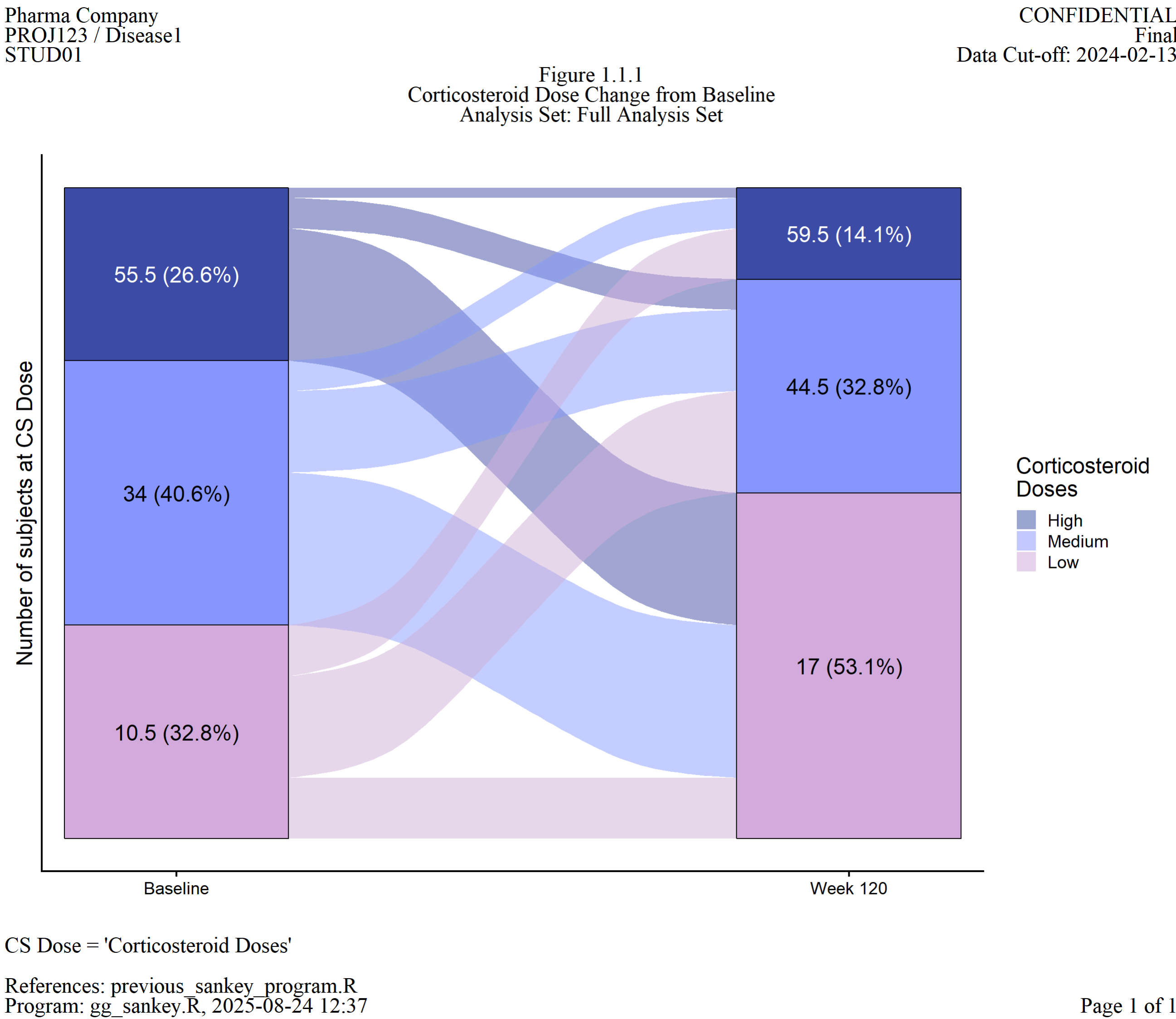


Example

The workflow of the package is as follows:

- Create your object (**ggplot**, **gt**, **flectable** etc.)
- Choose a layout (predefined or custom).
- Use **gridify()** to create a **gridify** object.
- Print the **gridify** object to see empty and filled cells.
- Use **set_cell()** to fill in the various text elements in the layout (headers, footers , etc.).

The following example uses a **ggplot2** plot and the **gridify** layout **pharma_layout_base()**. The example data is synthetic and sourced from the **random.cdisc.data** package.



```
library(ggplot2)
library(gridify)
# Create your object (`ggplot`, `gt`, `flectable` etc.)
ggplot_obj <- ggplot(...) + ...
# Use `gridify()` to create a `gridify` object
gridify_object <- gridify(
  object = ggplot_obj,
  # Choose a Layout (predefined or custom)
  layout = pharma_layout_base(
    global_gpar = grid::gpar(fontfamily = "serif", fontsize = 18),
    margin = grid::unit(c(t = 0.5, r = 0.5, b = 0.5, l = 0.5), "cm")
  )
)
# Print the `gridify` object to see empty and filled cells
gridify_object
# Use `set_cell()` to fill in the various text elements in the Layout
gridify_object |>
  set_cell("header_left_1", "Pharma Company") |>
  set_cell("header_left_2", "PROJ123 / Disease1") |>
  set_cell("header_left_3", "STUD01") |>
  set_cell("header_right_2", "Draft") |>
  set_cell("output_num", "Figure 1.1.1") |>
  set_cell("title_1", "Corticosteroid Dose Change from Baseline") |>
  set_cell("title_2", "Analysis Set: Full Analysis Set") |>
  set_cell("note", "CS Dose = 'Corticosteroid Doses'") |>
  set_cell("footer_left", "Program: gg_sankey.R, 2025-08-24 12:37") |>
  set_cell("footer_right", "Page 1 of 1") |>
  set_cell("header_right_3", "Data Cut-off: 2024-02-13") |>
  set_cell("references", "References: previous_sankey_program.R")
```

Power of gridify



Pharmaverse: As a pharmaverse TLG (Tables, Listings, and Graphs) package, **gridify** fills a critical gap by providing a unified solution for adding regulatory-required elements like headers, titles and footnotes, and to clinical trial outputs, ensuring consistency across all deliverables. Its Apache 2.0 license, full code coverage, comprehensive CI/CD testing, and compatibility with other pharmaverse packages makes it an ideal component for building validated, submission-ready clinical study reports that meet clinical reporting standards.

UX (User Experience): **gridify** provides a straightforward and consistent interface for adding headers, footers, and other text elements to any TLG, regardless of its origin package. The package offers both predefined pharma-compliant layouts for quick implementation and flexible custom layout options.

Tinyverse: **gridify** follows the tinyverse philosophy by being built exclusively on base R's **grid** and **methods** packages with zero external dependencies, making it an ultra-lightweight solution for pharmaceutical TLG enhancement.

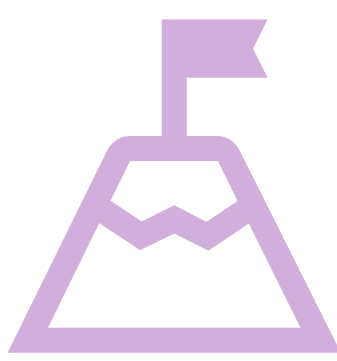


OOP (Object-Oriented Programming): **gridify** uses internally S4 OOP (Object Oriented Programming) from base R to create a well structured design. This OOP design allows the package to offer a clean code base, easier maintenance and enables user friendly interface. The design is well documented and available in the **inst/UML** directory of **gridify** repository.

Metaprogramming: **gridify** employs metaprogramming techniques to expose the underlying grid code it generates, providing complete transparency into how layouts are constructed and allowing users to inspect, modify, or reproduce the exact grid call used. The metaprogramming ensures full reproducibility.

Challenge

Create a custom **gridify** layout useful for others, like your organization. You have full flexibility when working on a new **gridify** layout, as each text element can have custom styling and position. **Please propose your custom gridify layout by creating the new “gridify Layout Proposal” issue, scan the QR code.** Here is an example of what can be achieved with **gridify**, when looking for a unique design. The example data is synthetic and sourced from the **random.cdisc.data** package.



Gridify's Creative Call			
Geographic Region 1	MEAN AGE	MEAN BMRKR1	
A: Drug X			
Africa	32.62	6.47	
Asia	33.11	6.00	
Eurasia	38.40	4.88	
Europe	29.75	5.44	
North America	35.62	6.84	
South America	36.69	5.18	
B: Placebo			
Africa	31.14	4.65	
Asia	35.17	5.97	
Eurasia	37.50	6.35	
Europe	39.33	4.17	
North America	38.80	4.21	
South America	32.00	6.22	
C: Combination			
Africa	32.73	6.57	
Asia	35.45	5.44	
Eurasia	31.83	3.58	
Europe	54.50	2.35	
North America	34.60	6.26	
South America	38.30	6.62	
AGNO team		Powered by gridify	

*'When standard layouts feel too plain,
And your reports need that custom flair,
Gridify invites you to design and share,
A layout that shows how much you care.
With flexible styling for every text,
Create something bold, something complex,
Scan the QR code, propose your best,
Join the community, pass the creative test.
From corporate branding to research needs,
Your custom layout plants the seeds,
For others seeking that perfect frame,
To showcase data and stake their claim.'*
Anonymous

References



gridify repository



pharmaverse



tinyverse