Package: pharmax.viz (via r-universe)

May 27, 2026

Title Pharmacometric Visualization for the pharmax Ecosystem

Version 0.2.0.9000

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Description One-line pharmacometric diagnostic plots with modern aesthetics. Creates goodness-of-fit panels, spaghetti plots, and publication-ready exports with consistent theming for pharmacometric workflows.

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URL https://github.com/pharmax-org/pharmax, https://pharmax-org.github.io/pharmax

BugReports https://github.com/pharmax-org/pharmax/issues

Depends R (>= 4.1.0)

Imports cli (>= 3.6.0), ggplot2 (>= 3.5.0), patchwork, rlang (>= 1.1.0)

Suggests testthat (>= 3.0.0), knitr, rmarkdown

Config/testthat/edition 3

VignetteBuilder knitr

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Repository https://pharmax-org.r-universe.dev

Date/Publication 2026-05-27 07:41:18 UTC

RemoteUrl https://github.com/pharmax-org/pharmax

RemoteRef HEAD

RemoteSha ec769714bbb5ce973aed6b7020fdbac45f81df95

RemoteSubdir packages/pharmax.viz

Contents

`px_colors` *pharmax color palette*

Description

pharmax color palette

Usage

```
px_colors(n = 8)
```

Arguments

`n`	Number of colors.

Value

Character vector of hex colors.

`px_forest` *Forest plot for estimates and intervals*

Description

Forest plot for estimates and intervals

Usage

```
px_forest(
  data,
  term = "term",
  estimate = "estimate",
  lower = "lower",
  upper = "upper",
  reference = 0,
  mode = "light"
)
```

Arguments

`data`	Data frame with estimate and interval columns.
`term`	Term label column.
`estimate`	Estimate column.
`lower`	Lower interval column.
`upper`	Upper interval column.
`reference`	Reference line value.
`mode`	Theme mode passed to `theme_pharmax()`.

Value

A ggplot2 object.

`px_gof` *Goodness-of-fit diagnostic panel*

Description

Creates a four-panel diagnostic plot: DV vs PRED, DV vs IPRED, CWRES vs TIME, and CWRES vs PRED.

Usage

```
px_gof(data, log_scale = TRUE, mode = "light")
```

Arguments

`data`	Data frame with at least `DV` and `PRED` columns.
`log_scale`	Use log10 axes for observed-vs-predicted panels.
`mode`	Theme mode passed to `theme_pharmax()`.

Value

A patchwork plot object.

px_npde *NPDE diagnostic panel*

Description

NPDE diagnostic panel

Usage

```
px_npde(
  data,
  npde = "NPDE",
  time = "TIME",
  prediction = "PRED",
  mode = "light"
)
```

Arguments

`data`	Data frame containing an NPDE-like column.
`npde`	NPDE column name.
`time`	Optional time column.
`prediction`	Optional prediction column.
`mode`	Theme mode passed to `theme_pharmax()`.

Value

A patchwork plot object.

px_plot_grid *Compose pharmax plots*

Description

Compose pharmax plots

Usage

```
px_plot_grid(
  ...,
  ncol = 2,
  title = NULL,
  subtitle = NULL,
  caption = NULL,
  mode = "light"
)
```

Arguments

`...`	ggplot2 or patchwork plots, or a single list of plots.
`ncol`	Number of columns.
`title`	Optional grid title.
`subtitle`	Optional grid subtitle.
`caption`	Optional grid caption.
`mode`	Theme mode passed to `theme_pharmax()`.

Value

A patchwork plot object.

`px_residuals` *Residual diagnostic panel*

Description

Creates residual-vs-time, residual-vs-prediction, histogram, and QQ panels.

Usage

```
px_residuals(
  data,
  residual = NULL,
  time = "TIME",
  prediction = "PRED",
  mode = "light"
)
```

Arguments

`data`	Data frame containing residual columns.
`residual`	Residual column. Auto-detects `CWRES`, `IWRES`, then `RES`.
`time`	Time column used for residual-vs-time when available.
`prediction`	Prediction column used for residual-vs-prediction when available.
`mode`	Theme mode passed to `theme_pharmax()`.

Value

A patchwork plot object.

px_save *Save a pharmax plot*

Description

Save a pharmax plot

Usage

```
px_save(plot, filename, width = 8, height = 6, dpi = 300, ...)
```

Arguments

plot	A ggplot2 or patchwork plot.
filename	Output filename.
width	Width in inches.
height	Height in inches.
dpi	Resolution.
...	Additional arguments passed to ggplot2::ggsave().

Value

The input filename, invisibly.

px_spaghetti *Individual PK concentration-time profiles*

Description

Individual PK concentration-time profiles

Usage

```
px_spaghetti(
  data,
  group = NULL,
  log_y = FALSE,
  facet_by = NULL,
  highlight_ids = NULL,
  mode = "light"
)
```

Arguments

data	Data frame with ID, TIME, and DV columns.
group	Optional grouping variable for color.
log_y	Use a log10 y-axis.
facet_by	Optional column to facet by.
highlight_ids	Optional vector of subject IDs to highlight.
mode	Theme mode passed to theme_pharmax().

Value

A ggplot2 object.

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px_vpc *Lightweight visual predictive check*

Description

Lightweight visual predictive check

Usage

```
px_vpc(
  data,
  time = "TIME",
  observed = "DV",
  simulated = "SIM",
  bins = NULL,
  probs = c(0.05, 0.5, 0.95),
  mode = "light"
)
```

Arguments

data	Data frame with observed and simulated values.
time	Time column.
observed	Observed concentration column.
simulated	Simulated concentration column.
bins	Number of time bins. If NULL, exact time values are used.
probs	Quantiles to show for observed and simulated values.
mode	Theme mode passed to theme_pharmax().

Value

A ggplot2 object.

scale_color_pharmax *pharmax color scale for ggplot2*

Description

pharmax color scale for ggplot2

Usage

```
scale_color_pharmax(...)

scale_fill_pharmax(...)
```

Arguments

...	Arguments passed to ggplot2::discrete_scale().

theme_pharmax *The pharmax ggplot2 theme*

Description

A clean, publication-ready theme for pharmacometric graphics.

Usage

```
theme_pharmax(base_size = 12, base_family = "", mode = c("light", "dark"))
```

Arguments

base_size	Base font size.
base_family	Base font family.
mode	Theme mode, either "light" or "dark".

Value

A ggplot2 theme object.

Examples

```
library(ggplot2)
ggplot(mtcars, aes(wt, mpg)) +
  geom_point() +
  theme_pharmax()
```

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