Package 'Certara.VPCResults'

May 7, 2026

Title Generate Visual Predictive Checks (VPC) Using 'shiny'

Version 3.0.2

Description Utilize the 'shiny' interface to parameterize a Visual Predictive Check (VPC), including selecting from different binning or binless methods and performing stratification, censoring, and prediction correction. Generate the underlying 'tidyvpc' and 'ggplot2' code directly from the user interface and download R or Rmd scripts to reproduce the VPCs in R.

Depends R (>= 4.0)

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URL https://certara.github.io/R-VPCResults/

Encoding UTF-8

RoxygenNote 7.3.2

Suggests knitr, rmarkdown, xpose, ggnewscale, testthat (>= 3.0.0)

Imports shinyAce, shinymeta, bslib (>= 0.7.0), colourpicker, data.table, dplyr, DT, grDevices, ggplot2, plotly, shiny (>= 1.7.0), shinycssloaders, shinyjs, shinyWidgets, shinyjqui, sortable, tidyvpc, htmltools, rlang, scales

Config/testthat/edition 3

NeedsCompilation no

Author James Craig [aut, cre], Mike Talley [aut], Certara USA, Inc [cph, fnd]

Maintainer James Craig <james.craig@certara.com>

Repository CRAN

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theme_certara *A ggplot2 theme for Certara.*

Description

A ggplot2 theme for Certara.

Usage

```
theme_certara(
  base_size = 11,
  base_family = "",
  base_line_size = base_size/22,
  base_rect_size = base_size/22,
  grid = c("none", "horizontal", "both")
)
```

Arguments

base_size	base font size, given in pts.
base_family	base font family
base_line_size	base size for line elements
base_rect_size	base size for rect elements
grid	Which grid lines should appear? Horizontal only, both horizontal and vertical, or none (default). continuous_scale().

Details

There are 3 variants of the theme: no grid theme_certara(), full grid theme_certara(grid = "both"), and horizontal grid lines only theme_certara(grid = "horizontal").

Value

An object of class theme().

vpcResultsUI *Shiny GUI to parameterize Visual Predictive Check (VPC)*

Description

Use tidyvpc package to parameterize VPC from Shiny GUI and customize plot using ggplot2. Code generation functionality allows you to reproduce tidyvpc object and ggplot2 plot in your local R session via R script saved to your working directory.

Usage

```
vpcResultsUI(
  observed,
  simulated,
  ObsName = NULL,
  vpc.type = c("continuous", "categorical"),
  tagged = NULL,
  settings = NULL,
  ...
)
```

Arguments

observed	Observed input data.
simulated	Simulated input data.
ObsName	Optional character value specifiying the name of the observed dependent variable (e.g., ObsName).
vpc.type	Character value specifying type of VPC.
tagged	A list of tagged VPC's or model diagnostics created from previous Certara.VPC or Certara.ModelResults session.
settings	A list of plot customization settings used in previous Certara.VPC or Certara.ModelResults session.
...	Arguments for initiation from Pirana.

Value

If interactive(), returns a list of tagged diagnostics from the Shiny application, otherwise returns TRUE.

Examples

```
if (interactive()) {
vpcResultsUI(tidyvpc::obs_data, tidyvpc::sim_data)
}
```

---

write_code *Write code to R script from tagged diagnostics*

Description

Use this function to write code to R script from diagnostics tagged in Certara's VPC Results Shiny Application.

Usage

```
write_code(tagged, file)
```

Arguments

tagged	List of tagged objects from returned from VPCResultsUI().
file	Character specifying path of output file. If missing, it will be saved as code.R in working directory.

Value

Returns NULL after writing to file.

Examples

```
if (interactive()) {
 tagged_diagnostics <-
   vpcResultsUI(tidyvpc::obs_data, tidyvpc::sim_data)

 write_code(tagged_diagnostics, "tagged_vpc.R")
}
```

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