

Package: qiverse.qipatterns (via r-universe)

October 13, 2026

Title Quality Improvement Chart Patterns

Version 0.1.3

Description Defines functions needed to detect patterns in quality improvement charts.

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Config/testthat/edition 3

Encoding UTF-8

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RoxygenNote 7.3.3

URL <https://github.com/AUS-DOH-Safety-and-Quality/qiverse/qiverse.qipatterns>

BugReports <https://github.com/AUS-DOH-Safety-and-Quality/qiverse/issues>

Depends R (>= 4.3.0)

Imports data.table, FunnelPlotR

Suggests qiverse.data, knitr, rmarkdown, testthat (>= 3.0.0)

Remotes AUS-DOH-Safety-and-Quality/qiverse/qiverse.data

VignetteBuilder knitr

Repository <https://aus-doh-safety-and-quality.r-universe.dev>

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RemoteUrl <https://github.com/AUS-DOH-Safety-and-Quality/qiverse>

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append_fpl_val	<i>Generate funnel plot values and output as data table</i>
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Description

Generate funnel plot values and output as data table

Usage

```
append_fpl_val(
  numerator,
  denominator,
  group,
  funnel_chart_type = "PR",
  multiplier = 1,
  better_is,
  overdispersion = FALSE,
  period_end
)
```

Arguments

numerator	A numeric vector
denominator	A numeric vector
group	A vector of group ids
funnel_chart_type	A string identifying the type of funnel plot. Default "PR"
multiplier	A string identifying the multiplication factor. Default 1
better_is	A character string, shows direction of positive change.
overdispersion	A boolean flag for whether to adjust for overdispersion
period_end	A string of the maximum date of the funnel period for use as the identifier for funnel astronomical points type Date format: %d/%m/%Y:15/12/2022

Value

The input data with appended funnel plot values in a data table

pattern_detection	<i>Pattern Detection</i>
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Description

Pattern Detection

Usage

```
pattern_detection(
  indicator,
  group,
  period_end,
  numerator,
  denominator,
  multiplier,
  better_is,
  spc_chart_type = "p",
  funnel_chart_type = "PR",
  parent_indicator = NA,
  indicator_name = indicator,
  group_name = group,
  funnel_data_points = "Yes",
  overdispersion = FALSE,
  trend_size = 5,
  shift_size = 7
)
```

Arguments

indicator	A vector of indicator codes
group	A vector of group ids
period_end	A vector of dates of type Date format: %d/%m/%Y:12/11/2021
numerator	A numeric vector
denominator	A numeric vector
multiplier	A string identifying the multiplication factor. Default 1
better_is	A character string, shows direction of positive change.
spc_chart_type	A string identifying the type of spc chart. Default "p"
funnel_chart_type	A string identifying the type of funnel plot. Default "PR"
parent_indicator	A vector used for indicator grouping.
indicator_name	A vector of descriptive names for indicators
group_name	A vector of descriptive names for groups

funnel_data_points	A vector of which data points are included in the funnel plot calculation
overdispersion	A boolean flag for whether to adjust for overdispersion
trend_size	The number of points in a trend pattern
shift_size	The number of points in a shift pattern

Value

A data table of unique indicator group rows with any identified patterns

See Also

Other Pattern detection functions: [pattern_rules\(\)](#), [valid_spc\(\)](#)

pattern_rules	<i>Apply pattern rules</i>
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Description

Apply pattern rules

Usage

```
pattern_rules(
  numerator,
  denominator,
  period_end,
  unique_key,
  spc_chart_type = "p",
  multiplier = 1,
  better_is = "Lower",
  trend_size = 5,
  shift_size = 7
)
```

Arguments

numerator	A numeric vector
denominator	A numeric vector. Set as NA for g and t spc_chart_type.
period_end	A vector of dates of type Date format: %d/%m/%Y:15/12/2022
unique_key	A key to identify each indicator group combination
spc_chart_type	A string identifying the type of spc chart. Default "p"
multiplier	A string identifying the multiplication factor. Default 1
better_is	A character string, shows direction of positive change. "Higher" or "Lower"
trend_size	The number of points in a trend pattern
shift_size	The number of points in a shift pattern

Value

The input data with appended identified patterns

See Also

Other Pattern detection functions: [pattern_detection\(\)](#), [valid_spc\(\)](#)

valid_spc	<i>Check validity of data for SPC</i>
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Description

Check validity of data for SPC

Usage

```
valid_spc(numerator, denominator, period_end)
```

Arguments

- numerator A numeric vector
- denominator A numeric vector
- period_end A vector of dates of type Date format: %d/%m/%Y:15/12/2022

Value

The input data with added valid_spc flag for filtering

See Also

Other Pattern detection functions: [pattern_detection\(\)](#), [pattern_rules\(\)](#)

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