

Package ‘compIndexBuilder’

September 13, 2026

Type Package

Title Composite Index Builder & Analytics 'shiny' App

Version 2.1.0

Author Hossein Hassani [aut],
Steve Macfeely [aut],
Petra Kynclova [aut],
Nour Barnat [aut],
Leila Marvian Mashhad [aut, cre],
Fernando CANTU BAZALDUA [aut]

Maintainer Leila Marvian Mashhad <leila.marveian@gmail.com>

Description Provides an interactive 'shiny' application for constructing, analysing, comparing, and visualising composite indices from tabular multidimensional data. Supports multi-sheet 'Excel' workbooks with active-sheet selection, refresh controls, per-sheet and workbook-wide exports, automatic reshaping of wide indicator-year columns such as 'IN1-2019' into panel form, configurable missing-value code handling, indicator direction and normalisation controls, equal and custom weighting, entity-level ranking, time-series analysis and forecasting, entity comparisons, pillar-based sub-indices with equal, custom, correlation-based, or principal-component weights, and diagnostic tools including internal-consistency reliability assessment, coefficient of variation, principal component analysis, sensitivity analysis, correlation heatmaps, and weighted flow visualizations.

License GPL-3

Encoding UTF-8

Depends R (>= 4.1.0)

Imports shiny, shinydashboard, DT, plotly, ggplot2, dplyr, readxl,
forecast, tidyr, networkD3, psych, corrplot, missForest, zoo,
jsonlite

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

Repository CRAN
Date/Publication 2026-09-13 18:40:02 UTC

Contents

compIndexBuilder-package	2
compIndexBuilder	2
Index	4

compIndexBuilder-package	
	<i>Composite Index Builder and Analytics Shiny Application</i>

Description

Provides an interactive Shiny application for building and analysing composite indices from multidimensional tabular data. Version 2.1 supports multi-sheet Excel workbooks, automatic conversion of indicator-year headers such as IN1-2019 into panel form, configurable missing-value codes, sheet-level exports, data processing, custom and pillar-based weighting, rankings, time-series analysis, forecasting, comparisons, and statistical diagnostics.

Details

Launch the application in an interactive R session with `compIndexBuilder()`.

Author(s)

Hossein Hassani, Steve Macfeely, Petra Kynclova, Nour Barnat, Leila Marvian Mashhad, and Fernando CANTU BAZALDUA.
Maintainer: Leila Marvian Mashhad <leila.marveian@gmail.com>

compIndexBuilder	<i>Launch the Composite Index Builder Shiny Application</i>
------------------	---

Description

Launches the interactive Shiny application bundled with **compIndexBuilder**. The application supports CSV and multi-sheet Excel workbooks, automatic indicator-year wide-to-panel preparation, configurable missing-value handling, composite-index construction, weighting, diagnostics, time-series analysis, forecasting, comparisons, and pillar-based sub-indices.

Usage

`compIndexBuilder(...)`

Arguments

... Additional arguments passed to `shiny::runApp()`, such as `launch.browser`, `host`, or `port`.

Value

Invisibly returns the value returned by `shiny::runApp()`. The function is primarily called for its side effect of launching the Shiny application.

Examples

```
if (interactive()) {  
  compIndexBuilder()  
}
```

Index

`compIndexBuilder`, [2](#)

`compIndexBuilder-package`, [2](#)