

Package ‘rches’

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Version 0.1

Title Chess Move, Generation/Validation, Piece Placement/ Movement, and Check/Checkmate/Stalemate Detection

Description R package for chess validations, pieces movements and check detection. Also integrates functions to plot chess boards given a Forsyth Edwards and Portable Game notations.

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URL <https://github.com/jbkunst/rches>

BugReports <https://github.com/jbkunst/rches/issues>

Imports htmlwidgets, V8, R6, ggplot2, plyr, dplyr, assertthat

RoxygenNote 5.0.0

NeedsCompilation no

Repository CRAN

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 Chess

Chess Class

Description

Chess class.

Usage

Chess

Format

```
Class 'R6ClassGenerator' <environment: 0x03cdd80c>
- attr(*, "name")= chr "Chess_generator"
```

 chessboardjs

Plot a chessboard via chessboardjs

Description

Function to show the fen string in a chessboard widget.

Usage

```
chessboardjs(fen = "rnbqkbnr/pppppppp/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1",
width = 300, height = 300)
```

Arguments

fen	Fen notation of a chessboard
width	Width in pixels
height	Height in pixels

Value

The chessboardjs board

Examples

```
chessboardjs()
```

chessboardjsOutput	<i>Widget output function for use in Shiny</i>
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Description

Widget output function for use in Shiny

Usage

```
chessboardjsOutput(outputId, width = "100%", height = "400px")
```

Arguments

outputId	Id of the div tag
width	Width in pixels
height	Height in pixels

chessopenings	<i>Chess openings data</i>
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Description

This data comes from the chess Chess Opening Theory wikibook https://en.wikibooks.org/wiki/Chess_Opening_Theory. The opening were parse using rvest package.

Usage

```
chessopenings
```

Format

A data frame with 544 observations and 3 variables.

Links

- https://en.wikibooks.org/wiki/Chess_Opening_Theory/ECO_volume_A
- https://en.wikibooks.org/wiki/Chess_Opening_Theory/ECO_volume_B
- https://en.wikibooks.org/wiki/Chess_Opening_Theory/ECO_volume_C
- https://en.wikibooks.org/wiki/Chess_Opening_Theory/ECO_volume_D
- https://en.wikibooks.org/wiki/Chess_Opening_Theory/ECO_volume_E

Variables

- eco: The game's opening classification
- name: Games's location
- pgn: The game's pgn

Examples

```
data(chessopenings)
library("dplyr")
head(chessopenings)
```

chesswc

FIDE World Cups data

Description

This data comes from the <http://www.theweekinchess.com/> site and represent 1,266 games in the FIDE World Cupo 11, 13 & 15. The data has been parsed from the downloaded pgn files using <https://github.com/jbkunst/chess-db> scripts.

Usage

```
chesswc
```

Format

A data frame with 1,266 observations and 11 variables.

Links

- <http://www.theweekinchess.com/chessnews/events/fide-world-cup-2015>
- <http://www.theweekinchess.com/chessnews/events/fide-world-cup-tromso-2013>
- <http://www.theweekinchess.com/chessnews/events/fide-world-cup-khanty-mansiysk-2011>

Variables

- event: Games's event
- site: Games's location
- date: Game's date
- round: Games's round
- white: White player's name
- black: Black player's name
- result: Game's result
- whiteelo: White player's elo rating
- blackelo: Black player's elo rating
- eco: The game's opening classification
- pgn: The game's pgn

Examples

```
data(chesswc)
library("dplyr")
count(chesswc, event)
```

ggchessboard

Plot a fen representation chessboard via ggplot2

Description

Function to show the fen string in ggplot2.

Usage

```
ggchessboard(fen = "rnbqkbnr/pppppppp/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1",
  cellcols = c("#D2B48C", "#F5F5DC"), perspective = "white",
  piecesize = 15)
```

Arguments

fen	Fen notation of a chessboard
cellcols	A 2 length vector for the cell colors
perspective	A string to show the perspective (black, white)
piecesize	Size of the the unicode texts

Value

A ggplot object

Examples

```
ggchessboard()

ggchessboard(fen = "rnbqkbnr/pp1ppppp/8/2p5/4P3/8/PPPP1PPP/RNBQKBNR w KQkq c6 0 2")

ggchessboard(fen = "rnbqkbnr/pp1ppppp/8/2p5/4P3/8/PPPP1PPP/RNBQKBNR w KQkq c6 0 2",
  cellcols = c("#CCCCCC", "#FAFAFA"),
  piecesize = 17,
  perspective = "black")
```

rchess	<i>Package por chess move, generation/validation, piece placement/movement, and check/checkmate/stalemate detection</i>
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Description

Package por chess move, generation/validation, piece placement/movement, and check/checkmate/stalemate detection

renderChessboardjs	<i>Widget render function for use in Shiny</i>
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Description

Widget render function for use in Shiny

Usage

```
renderChessboardjs(expr, env = parent.frame(), quoted = FALSE)
```

Arguments

expr	Expression
env	Environment
quoted	Quoted

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