Package ‘sportyR’

February 15, 2024

Title  Plot Scaled 'ggplot' Representations of Sports Playing Surfaces

Version  2.2.2

Description  Create scaled 'ggplot' representations of playing surfaces.
Playing surfaces are drawn pursuant to rule-book specifications.
This package should be used as a baseline plot for displaying any type of
tracking data.

License  GPL (>= 3)

Encoding  UTF-8

RoxygenNote  7.2.3

Imports  ggfittext, ggplot2, glue, grid, rlang

Depends  R (>= 3.3)

Suggests  data.table, gganimate, testthat (>= 3.0.0), knitr, rmarkdown, curl

Config/testthat/edition  3

URL  https://sportyr.sportsdataverse.org/,
     https://github.com/sportsdataverse/sportyR

BugReports  https://github.com/sportsdataverse/sportyR/issues

VignetteBuilder  knitr

SystemRequirements  pandoc (>= 1.12.3), pandoc-citeproc

NeedsCompilation  no

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Repository  CRAN

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  \item \texttt{cani\_color\_league\_features}
      \begin{quote}
        \textit{Check to see what features of a surface can be colored}
      \end{quote}
  \end{description}

\begin{description}
  \item \textbf{Description}
    Check to see what features of a surface can be colored
  \item \textbf{Usage}
    \begin{verbatim}
    cani\_color\_league\_features(league\_code, sport\_name = NULL)
    \end{verbatim}
  \item \textbf{Arguments}
    \begin{itemize}
      \item \texttt{league\_code} \hspace{1cm} The case-insensitive league code to be plotted
      \item \texttt{sport\_name} \hspace{1cm} The name of a sport to use in the event that the \texttt{league\_code} supplied has more than one sport associated with it. Default: \texttt{NULL}
    \end{itemize}
  \item \textbf{Value}
    Nothing, but a message is sent to the console
  \item \textbf{Examples}
    \begin{verbatim}
    cani\_color\_league\_features("NCAA", "basketball")
    \end{verbatim}
\end{description}
cani_plot_league

Check to see if a league can be plotted, and alert as to which function(s) that league will work for

Description
Check to see if a league can be plotted, and alert as to which function(s) that league will work for

Usage
cani_plot_league(league_code)

Arguments
league_code The case-insensitive league code to be plotted

Value
Nothing, but a message is sent to the console

Examples
cani_plot_league("MLB")

cani_plot_sport
Check to see if a sport can be plotted, and alert as to which league(s) are plottable for the sport

Description
Check to see if a sport can be plotted, and alert as to which league(s) are plottable for the sport

Usage
cani_plot_sport(sport_code)

Arguments
sport_code The case-insensitive sport name

Value
Nothing, but a message is sent to the console

Examples
cani_plot_sport("basketball")
convert_units  

Convert all units, regardless of starting and ending units

Description

Convert all units, regardless of starting and ending units

Usage

convert_units(meas, from_unit, to_unit, conversion_columns = NULL)

Arguments

meas  
A measurement in any unit of length

to_unit  
A string containing the ending unit of measure

from_unit  
A string containing the original unit of measure to be converted

conversion_columns  
A vector containing the columns to convert if meas is of type data.frame

Value

The measurement in converted units

Examples

convert_units(1, "in", "cm")
convert_units(100, "cm", "m")

geom_baseball  

Generate a ggplot2 instance containing a baseball field for a specified league

Description

Generate a ggplot2 instance containing a baseball field for a specified league

Usage

geom_baseball(
  league,
  display_range = "full",
  field_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
Arguments

league
A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function.

The possible display ranges are:

- "full" The full field. This is the default
- "infield" The infield on the baseball field

display_range
A list of updates to the field’s parameters. These will overwrite the parameters of the league.

color_updates
A list of updates to the field’s default colors, which are set by `baseball_features_set_colors()`.

rotation
An angle, given in degrees, through which the plot should be rotated.

x_trans
The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the back tip of home plate towards the left-handed batter’s box (the first base side of the field).

y_trans
The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the back tip of home plate towards straight-away center field.

field_units
The units with which to draw the field. The default is NULL, which will apply the rule-book specified units.

xlims
The limits on the final display in the x direction. The default is NULL, which will utilize the xlims specified by the display_range parameter.

ylims
The limits on the final display in the y direction. The default is NULL, which will utilize the ylims specified by the display_range parameter.

Value

A ggplot2 instance with a full-surface representation of a baseball field.

Examples

```r
## Not run:
geom_baseball(league = "MLB", rotation = 270, display_range = "infield")
geom_baseball(league = "little league", field_units = "m")
## End(Not run)
```
geom_basketball  

Generate a ggplot2 instance containing a basketball court for a specified league

Description

Generate a ggplot2 instance containing a basketball court for a specified league

Usage

```
geom_basketball(
  league,
  display_range = "full",
  court_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  court_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

Arguments

- **league**: The league for which to draw the surface. This is case-insensitive
- **display_range**: A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function. The possible display ranges are:
  - "full": The full court. This is the default
  - "in_bounds_only": The full in-bounds area of the court
  - "in bounds only": The full in-bounds area of the court
  - "offense": The TV-right half of the court half-court. This is considered the offensive half of the court
  - "offence": The TV-right half of the court half-court. This is considered the offensive half of the court
  - "offensivehalfcourt": The TV-right half of the court half-court. This is considered the offensive half of the court
  - "offensive_half_court": The TV-right half of the court half-court. This is considered the offensive half of the court
  - "offensive half court": The TV-right half of the court half-court. This is considered the offensive half of the court
  - "defense": The TV-left half of the court half-court. This is considered the defensive half of the court
  - "defence": The TV-left half of the court half-court. This is considered the defensive half of the court
"defence" The TV-left half of the court half-court. This is considered the defensive half of the court
"defensivehalfcourt" The TV-left half of the court half-court. This is considered the defensive half of the court
"defensive_half_court" The TV-left half of the court half-court. This is considered the defensive half of the court
"defensive half court" The TV-left half of the court half-court. This is considered the defensive half of the court
"offensivekey" The TV-right offensive key (three-point line and two-point range)
"offensive_key" The TV-right offensive key (three-point line and two-point range)
"offensive key" The TV-right offensive key (three-point line and two-point range)
"attackingkey" The TV-right offensive key (three-point line and two-point range)
"attacking_key" The TV-right offensive key (three-point line and two-point range)
"attacking key" The TV-right offensive key (three-point line and two-point range)
"defensivekey" The TV-left defensive key (three-point line and two-point range)
"defensive_key" The TV-left defensive key (three-point line and two-point range)
"defensive key" The TV-left defensive key (three-point line and two-point range)
"defendingkey" The TV-left defensive key (three-point line and two-point range)
"defending_key" The TV-left defensive key (three-point line and two-point range)
"defending key" The TV-left defensive key (three-point line and two-point range)
"offensivepaint" The TV-right offensive free-throw lane
"offensive_paint" The TV-right offensive free-throw lane
"offensive paint" The TV-right offensive free-throw lane
"attackingpaint" The TV-right offensive free-throw lane
"attacking_paint" The TV-right offensive free-throw lane
"attacking paint" The TV-right offensive free-throw lane
"offensivelane" The TV-right offensive free-throw lane
"offensive_lane" The TV-right offensive free-throw lane
"offensive lane" The TV-right offensive free-throw lane
"attackinglane" The TV-right offensive free-throw lane
"attacking_lane" The TV-right offensive free-throw lane
"attacking lane" The TV-right offensive free-throw lane
"defensivepaint" The TV-left defensive free-throw lane
"defensive_paint" The TV-left defensive free-throw lane
"defensive paint" The TV-left defensive free-throw lane
"defensive paint"  The TV-left defensive free-throw lane
"defending paint"  The TV-left defensive free-throw lane
"defending paint"  The TV-left defensive free-throw lane
"defensive Lane"  The TV-left defensive free-throw lane
"defensive lane"  The TV-left defensive free-throw lane
"defensive lane"  The TV-left defensive free-throw lane
"defendingleane"  The TV-left defensive free-throw lane
"defending lane"  The TV-left defensive free-throw lane
"defending lane"  The TV-left defensive free-throw lane

court_updates  A list of updates to the courts’ parameters. These will overwrite the parameters of the league

color_updates  A list of updates to the courts’ default colors, which are set by basketball_features_set_colors()

rotation  An angle, given in degrees, through which the plot should be rotated

x_trans  The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the court towards the right-hand basket when viewing the court in TV View

y_trans  The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the court towards the top of the court when viewing the court in TV view

court_units  The units with which to draw the court. The default is NULL, which will apply the rule-book specified units

xlims  The limits on the final display in the x direction. The default is NULL, which will utilize the xlims specified by the display_range parameter

ylimbs  The limits on the final display in the y direction. The default is NULL, which will utilize the ylims specified by the display_range parameter

Value

A ggplot2 instance with a full-surface representation of a basketball court

Examples

## Not run:
geom_basketball(league = "NBA", rotation = 270, display_range = "offense")
geom_basketball(league = "FIBA", court_units = "ft")

## End(Not run)
Generate a ggplot2 instance containing a curling sheet for a specified league

Description

Generate a ggplot2 instance containing a curling sheet for a specified league

Usage

```r
geom_curling(
  league,
  display_range = "full",
  sheet_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  sheet_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

Arguments

- **league**: The league for which to draw the surface. This is case-insensitive
- **display_range**: A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function.
  The possible display ranges are:
  - "full" The full sheet. This is the default
  - "in_bounds_only" The full in-bounds area of the sheet
  - "in bounds only" The full in-bounds area of the sheet
  - "house" A single house, which defaults to the top house in TV view
- **sheet_updates**: A list of updates to the sheet’s parameters. These will overwrite the parameters of the league
- **color_updates**: A list of updates to the sheet’s default colors, which are set by `curling_features_set_colors()`
- **rotation**: An angle, given in degrees, through which the plot should be rotated
- **x_trans**: The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the sheet towards the right-hand goal when viewing the sheet in TV View
- **y_trans**: The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the sheet towards the top of the sheet when viewing the sheet in TV View
The units with which to draw the sheet. The default is `NULL`, which will apply the rule-book specified units.

The limits on the final display in the `x` direction. The default is `NULL`, which will utilize the `xlims` specified by the `display_range` parameter.

The limits on the final display in the `y` direction. The default is `NULL`, which will utilize the `ylims` specified by the `display_range` parameter.

A `ggplot2` instance with a full-surface representation of a curling sheet.

## Examples

```r
## Not run:
geom_curling(league = "wcf", rotation = 270, display_range = "house")
geom_curling(league = "wcf", sheet_units = "ft")
## End(Not run)
```

---

**geom_football**

Generate a `ggplot2` instance containing a football field for a specified league.

### Description

Generate a `ggplot2` instance containing a football field for a specified league.

### Usage

```r
gem_football(
  league,
  display_range = "full",
  field_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  field_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

### Arguments

- `league` The league for which to draw the surface. This is case-insensitive.
display_range  A case-insensitive string indicating the display range to use for the plot. The
default is "full", which will be returned when either an invalid or no value is
passed to the function.
The possible display ranges are:
"full"  The full field. This is the default
"in_bounds_only"  The full in-bounds area of the field
"in bounds only"  The full in-bounds area of the field
"offense"  The TV-right half of the field
"offence"  The TV-right half of the field
"offensivehalffield"  The TV-right half of the field
"offensive_half_field"  The TV-right half of the field
"offensive half field"  The TV-right half of the field
"defense"  The TV-left half of the field
"defence"  The TV-left half of the field
"defensivehalffield"  The TV-left half of the field
"defensive_half_field"  The TV-left half of the field
"defensive half field"  The TV-left half of the field
"redzone"  The offensive red zone of the field. This is by definition 20 yards
  from the goal line
"red_zone"  The offensive red zone of the field. This is by definition 20 yards
  from the goal line
"red zone"  The offensive red zone of the field. This is by definition 20 yards
  from the goal line
"oredzone"  The offensive red zone of the field. This is by definition 20 yards
  from the goal line
"offensive_red_zone"  The offensive red zone of the field. This is by definition
  20 yards from the goal line
"offensive red zone"  The offensive red zone of the field. This is by definition
  20 yards from the goal line
"dredzone"  The defensive red zone of the field. This is by definition 20 yards
  from the goal line
"defensive_red_zone"  The defensive red zone of the field. This is by definition
  20 yards from the goal line
"defensive red zone"  The defensive red zone of the field. This is by definition
  20 yards from the goal line

field_updates  A list of updates to the field’s parameters. These will overwrite the parameters
  of the league

color_updates  A list of updates to the field’s default colors, which are set by
  football_features_set_colors()

rotation  An angle, given in degrees, through which the plot should be rotated

x_trans  The amount that the x coordinates are to be shifted. By convention, the +x
  axis extends from the center of the field towards the right-hand endzone when
  viewing the field in TV View
geom_hockey

**Description**

Generate a `ggplot2` instance containing an ice rink for a specified league

**Usage**

```r
gem_hockey(
  league,
  display_range = "full",
  rink_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  rink_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

**Value**

A `ggplot2` instance with a full-surface representation of a football field

**Examples**

```r
## Not run:
geom_football(league = "NFL", rotation = 270, display_range = "red_zone")
geom_football(league = "cfl", field_units = "ft")

## End(Not run)
```

---

**y_trans**
The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the field towards the sideline when viewing the field in TV view.

**field_units**
The units with which to draw the field. The default is `NULL`, which will apply the rule-book specified units.

**xlims**
The limits on the final display in the x direction. The default is `NULL`, which will utilize the `xlims` specified by the `display_range` parameter.

**ylims**
The limits on the final display in the y direction. The default is `NULL`, which will utilize the `ylims` specified by the `display_range` parameter.
Arguments

league

The league for which to draw the surface. This is case-insensitive.

display_range

A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function.

The possible display ranges are:

"full" The full ice surface. This is the default
"in_bounds_only" The full in-bounds area of the rink
"in bounds only" The full in-bounds area of the rink
"offense" The TV-right half of the rink
"offence" The TV-right half of the rink
"defense" The TV-left half of the rink
"defence" The TV-left half of the rink
"ozone" The TV-right zone of the rink
"offensive zone" The TV-right zone of the rink
"offensive zone" The TV-right zone of the rink
"attacking zone" The TV-right zone of the rink
"attacking zone" The TV-right zone of the rink
"dzone" The TV-left zone of the rink
"defensive zone" The TV-left zone of the rink
"defensive zone" The TV-left zone of the rink
"defending zone" The TV-left zone of the rink
"defending zone" The TV-left zone of the rink
"nzone" The middle zone of the rink
"neutral" The middle zone of the rink
"neutral zone" The middle zone of the rink

rink_updates

A list of updates to the rink's parameters. These will overwrite the parameters of the league.

color_updates

A list of updates to the courts' default colors, which are set by `hockey_features_set_colors()`

rotation

An angle, given in degrees, through which the plot should be rotated

x_trans

The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the ice surface towards the right-hand goal when viewing the rink in TV View

y_trans

The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the ice surface towards the top of the rink when viewing the rink in TV View

rink_units

The units with which to draw the rink. The default is NULL, which will apply the rule-book specified units

xlims

The limits on the final display in the x direction. The default is NULL, which will utilize the xlims specified by the display_range parameter

ylims

The limits on the final display in the y direction. The default is NULL, which will utilize the ylims specified by the display_range parameter
**Value**

A `ggplot2` instance with a full-surface representation of an ice hockey rink

**Examples**

```r
## Not run:
geom_hockey(league = "NHL", rotation = 270, display_range = "ozone")
geom_hockey(league = "iihf", rink_units = "ft")
## End(Not run)
```

---

**geom_lacrosse**

Generate a `ggplot2` instance containing a lacrosse field for a specified league

**Description**

Generate a `ggplot2` instance containing a lacrosse field for a specified league

**Usage**

```r
geom_lacrosse(
  league,
  display_range = "full",
  field_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  field_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

**Arguments**

- `league`: The league for which to draw the surface. This is case-insensitive
- `display_range`: A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function. The possible display ranges are:
  - "full": The full field. This is the default
  - "offense": The offensive half of the field. This is the right half of the field in TV view
  - "offence": The offensive half of the field. This is the right half of the field in TV view

- `field_updates`, `color_updates`, `rotation`, `x_trans`, `y_trans`, `field_units`, `xlims`, `ylims`: Additional arguments for the `ggplot2` geom.
"offensivehalffield"  The offensive half of the field. This is the right half of the field in TV view
"offensive_half_field"  The offensive half of the field. This is the right half of the field in TV view
"offensive half field"  The offensive half of the field. This is the right half of the field in TV view
"defense"  The defensive half of the field. This is the left half of the field in TV view
"defence"  The defensive half of the field. This is the left half of the field in TV view
"defensivehalffield"  The defensive half of the field. This is the left half of the field in TV view
"defensive_half_field"  The defensive half of the field. This is the left half of the field in TV view
"defensive half field"  The defensive half of the field. This is the left half of the field in TV view

field_updates  A list of updates to the fields’ parameters. These will overwrite the parameters of the league

color_updates  A list of updates to the fields’ default colors, which are set by lacrosse_features_set_colors()

rotation  An angle, given in degrees, through which the plot should be rotated

x_trans  The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the field towards the right-hand basket when viewing the field in TV view

y_trans  The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the field towards the top of the field when viewing the field in TV view

field_units  The units with which to draw the field. The default is NULL, which will apply the rule-book specified units

xlims  The limits on the final display in the x direction. The default is NULL, which will utilize the xlims specified by the display_range parameter

ylims  The limits on the final display in the y direction. The default is NULL, which will utilize the ylims specified by the display_range parameter

Value
A ggplot2 instance with a full-surface representation of a lacrosse field

Examples

```r
## Not run:
geom_lacrosse(league = "NCAA", rotation = 270, display_range = "offense")
geom_lacrosse(league = "FIVB", field_units = "ft")
## End(Not run)
```
Generate a ggplot2 instance containing a soccer pitch for a specified league

Usage

```r
geom_soccer(
  league,
  display_range = "full",
  pitch_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  pitch_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

Arguments

- **league**: The league for which to draw the surface. This is case-insensitive.
- **display_range**: A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function.

The possible display ranges are:

- "full" The full pitch. This is the default
- "in_bounds_only" The full in-bounds area of the pitch
- "in bounds only" The full in-bounds area of the pitch
- "offense" The TV-right half of the pitch
- "offence" The TV-right half of the pitch
- "offensivehalfpitch" The TV-right half of the pitch
- "offensive_half_pitch" The TV-right half of the pitch
- "offensive half pitch" The TV-right half of the pitch
- "defense" The TV-left half of the pitch
- "defence" The TV-left half of the pitch
- "defensivehalfpitch" The TV-left half of the pitch
- "defensive_half_pitch" The TV-left half of the pitch
- "defensive half pitch" The TV-left half of the pitch
A list of updates to the pitch’s parameters. These will overwrite the parameters of the league

A list of updates to the pitch’s default colors, which are set by `soccer_features_set_colors()`

An angle, given in degrees, through which the plot should be rotated

The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the pitch towards the right-hand goal when viewing the pitch in TV view

The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the pitch towards the top of the pitch when viewing the pitch in TV view

The units with which to draw the pitch. The default is NULL, which will apply the rule-book specified units

The limits on the final display in the x direction. The default is NULL, which will utilize the xlims specified by the `display_range` parameter

The limits on the final display in the y direction. The default is NULL, which will utilize the ylims specified by the `display_range` parameter

A `ggplot2` instance with a full-surface representation of a soccer pitch

## Not run:
```r
geom_soccer(league = "EPL", rotation = 270, display_range = "offense")
geom_soccer(league = "fifa", pitch_units = "ft")
```

## End(Not run)

---

**geom_tennis**

Generate a `ggplot2` instance containing a tennis court for a specified league

**Description**

Generate a `ggplot2` instance containing a tennis court for a specified league

**Usage**

```r
geom_tennis(
  league,
  display_range = "full",
  court_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
)```
Arguments

league

display_range

court_updates

color_updates

rotation

x_trans

y_trans

court_units

y_trans = 0,
court_units = NULL,
xlims = NULL,
ylims = NULL
)

Arguments

league
The league for which to draw the surface. This is case-insensitive.

display_range
A case-insensitive string indicating the display range to use for the plot. The
default is "full", which will be returned when either an invalid or no value is
passed to the function.
The possible display ranges are:
"full" The full court. This is the default
"in_bounds_only" The full in-bounds area of the court
"in bounds only" The full in-bounds area of the court
"serve" The serving half of the court
"serving" The serving half of the court
"servicehalf" The serving half of the court
"service_half" The serving half of the court
"service half" The serving half of the court
"servinghalf" The serving half of the court
"serving_half" The serving half of the court
"serving half" The serving half of the court
"receive" The receiving half of the court
"receiving" The receiving half of the court
"receiverhalf" The receiving half of the court
"receive_half" The receiving half of the court
"receive half" The receiving half of the court
"receivinghalf" The receiving half of the court
"receiving_half" The receiving half of the court
"receiving half" The receiving half of the court

court_updates
A list of updates to the courts’ parameters. These will overwrite the parameters
of the league

color_updates
A list of updates to the courts’ default colors, which are set by tennis_features_set_colors()

rotation
An angle, given in degrees, through which the plot should be rotated

x_trans
The amount that the x coordinates are to be shifted. By convention, the +x axis
extends from the center of the court towards the right-hand serviceline when
viewing the court in TV View

y_trans
The amount that the y coordinates are to be shifted. By convention, the +y axis
extends from the center of the court towards the sideline when viewing the court
in TV view

court_units
The units with which to draw the court. The default is NULL, which will apply
the rule-book specified units
**geom_volleyball**

Generate a ggplot2 instance containing a volleyball court for a specified league

**Usage**

```r
geom_volleyball(
  league,
  display_range = "full",
  court_updates = list(),
  color_updates = list(),
  rotation = 0,
  x_trans = 0,
  y_trans = 0,
  court_units = NULL,
  xlims = NULL,
  ylims = NULL
)
```

**Arguments**

- **league**
  - The league for which to draw the surface. This is case-insensitive

- **display_range**
  - A case-insensitive string indicating the display range to use for the plot. The default is "full", which will be returned when either an invalid or no value is passed to the function.
  - The possible display ranges are:
"full"  The full court. This is the default
"in_bounds_only"  The full in-bounds area of the court
"in bounds only"  The full in-bounds area of the court
"offense"  The offensive half of the court. This is the right half of the court in TV view
"offence"  The offensive half of the court. This is the right half of the court in TV view
"offensivehalfcourt"  The offensive half of the court. This is the right half of the court in TV view
"offensive_half_court"  The offensive half of the court. This is the right half of the court in TV view
"offensive half court"  The offensive half of the court. This is the right half of the court in TV view
"defense"  The defensive half of the court. This is the left half of the court in TV view
"defence"  The defensive half of the court. This is the left half of the court in TV view
"defensivehalfcourt"  The defensive half of the court. This is the left half of the court in TV view
"defensive_half_court"  The defensive half of the court. This is the left half of the court in TV view
"defensive half court"  The defensive half of the court. This is the left half of the court in TV view

court_updates  A list of updates to the courts’ parameters. These will overwrite the parameters of the league

color_updates  A list of updates to the courts’ default colors, which are set by \texttt{volleyball_features_set_colors()}

rotation  An angle, given in degrees, through which the plot should be rotated

x_trans  The amount that the x coordinates are to be shifted. By convention, the +x axis extends from the center of the court towards the right-hand basket when viewing the court in TV View

y_trans  The amount that the y coordinates are to be shifted. By convention, the +y axis extends from the center of the court towards the top of the court when viewing the court in TV View

court_units  The units with which to draw the court. The default is \texttt{NULL}, which will apply the rule-book specified units

xlims  The limits on the final display in the x direction. The default is \texttt{NULL}, which will utilize the xlims specified by the \texttt{display_range} parameter

ylims  The limits on the final display in the y direction. The default is \texttt{NULL}, which will utilize the ylims specified by the \texttt{display_range} parameter

Value

A \texttt{ggplot2} instance with a full-surface representation of a volleyball court
Examples

```r
## Not run:
geom_volleyball(league = "NCAA", rotation = 270, display_range = "offense")
geom_volleyball(league = "FIVB", court_units = "ft")

## End(Not run)
```
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