

Package ‘ffsimulator’

February 12, 2023

Title Simulate Fantasy Football Seasons

Version 1.2.3

Description Uses bootstrap resampling to run fantasy football season simulations supported by historical rankings and 'nffastR' data, calculating optimal lineups, and returning aggregated results.

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URL <https://ffsimulator.ffverse.com>,
<https://github.com/ffverse/ffsimulator>

BugReports <https://github.com/ffverse/ffsimulator/issues>

Depends R (>= 3.5.0)

Imports checkmate (>= 2.0.0), cli (>= 3.0.0), data.table (>= 1.14.0),
ffscraper (>= 1.4.6), glue (>= 1.3.0), magrittr (>= 1.0.0),
nflreadr (>= 1.2.0), Rglpk (>= 0.6.0), rlang (>= 0.4.0),
tidytable (>= 0.6.4)

Suggests covr (>= 3.0.0), ggplot2 (>= 3.0.0), ggridges (>= 0.5.0),
knitr (>= 1.0), progressr (>= 0.8.0), rmarkdown (>= 2.6),
scales (>= 1.0.0), testthat (>= 3.0.0), vdiff (>= 1.0.2)

VignetteBuilder knitr

Config/testthat/edition 3

Encoding UTF-8

LazyData true

RoxygenNote 7.2.1

NeedsCompilation no

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Repository CRAN

Date/Publication 2023-02-12 22:40:06 UTC

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autoplot.ff_simulation

Automatically Plot ff_simulation Object

Description

Creates automatic plots for wins, ranks, or points for an ff_simulation object as created by ff_simulate().

Usage

```
autoplot.ff_simulation(object, type = c("wins", "rank", "points"), ...)  
  
## S3 method for class 'ff_simulation'  
plot(x, ..., type = c("wins", "rank", "points"), y)
```

Arguments

object	a ff_simulation object as created by ff_simulate()
type	one of "wins", "rank", "points"
...	unused, required by autoplot generic
x	A ff_simulation object.
y	Ignored, required for compatibility with the plot() generic.

Details

Usage of this function/method requires the ggplot2 package and (for wins and points plots) the ggridges package.

Value

a ggplot object

See Also

vignette("basic") for example usage

Examples

```
simulation <- .ffs_cache("foureight_sim.rds")  
  
ggplot2::autoplot(simulation) # default is type = "wins"  
ggplot2::autoplot(simulation, type = "rank")  
ggplot2::autoplot(simulation, type = "points")
```

autoplot.ff_simulation_week

Automatically Plot ff_simulation Object

Description

Creates automatic plots for wins, ranks, or points for an ff_simulation object as created by ff_simulate().

Usage

```
autoplot.ff_simulation_week(object, type = c("luck", "points"), ...)

## S3 method for class 'ff_simulation_week'
plot(x, ..., type = c("luck", "points"), y)
```

Arguments

object	a ff_simulation object as created by ff_simulate()
type	one of "luck" or "points"
...	unused, required by autoplot generic
x	A ff_simulation_week object.
y	Ignored, required for compatibility with the plot() generic.

Details

Usage of this function/method requires the ggplot2 package and (for wins and points plots) the ggridges package.

Value

a ggplot object

See Also

vignette("basic") for example usage

Examples

```
simulation <- .ffs_cache("fouereight_sim_week.rds")

ggplot2::autoplot(simulation) # default is type = "luck"
ggplot2::autoplot(simulation, type = "points")
```

espn_connect

Connect to a league

Description

See ffscraper::espn_connect() for details.

Value

a connection object to be used with ff_* functions

See Also

Other ffsrapr-imports: [ff_connect\(\)](#), [ff_scoringhistory\(\)](#), [ff_starter_positions\(\)](#), [flea_flicker_connect\(\)](#), [mfl_connect\(\)](#), [sleeper_connect\(\)](#)

`ffs_add_replacement_level`

Add replacement level players to each roster

Description

Add replacement level players to each roster

Usage

```
ffs_add_replacement_level(  
  rosters,  
  latest_rankings,  
  franchises,  
  lineup_constraints,  
  pos_filter = c("QB", "RB", "WR", "TE")  
)
```

Arguments

<code>rosters</code>	a dataframe of rosters as created by <code>ffs_rosters()</code>
<code>latest_rankings</code>	a dataframe of latest rankings as created by <code>ff_latest_rankings()</code>
<code>franchises</code>	a dataframe of franchises as created by <code>ffs_franchises()</code>
<code>lineup_constraints</code>	a dataframe of lineup constraints as created by <code>ffs_starter_positions</code>
<code>pos_filter</code>	a character vector of positions to filter to, defaults to <code>c("QB", "RB", "WR", "TE", "K")</code>

Value

a dataframe of rosters with replacements

ffs_adp_outcomes *Connects ff_scoringhistory to past ADP rankings*

Description

The backbone of the ffsimulator resampling process is coming up with a population of weekly outcomes for every preseason positional rank. This function creates that dataframe by connecting historical FantasyPros.com rankings to nflfastR-based scoring data, as created by `ffscraper::ff_scoringhistory()`.

Usage

```
ffs_adp_outcomes(
  scoring_history,
  gp_model = "simple",
  pos_filter = c("QB", "RB", "WR", "TE")
)
```

Arguments

<code>scoring_history</code>	a scoring history table as created by <code>ffscraper::ff_scoringhistory()</code>
<code>gp_model</code>	either "simple" or "none" - simple uses the average games played per season for each position/adp combination, none assumes every game is played.
<code>pos_filter</code>	a character vector: filter the positions returned to these specific positions, default: <code>c("QB","RB","WR","TE")</code>

Value

a dataframe with position, rank, probability of games played, and a corresponding nested list per row of all week score outcomes.

See Also

`fp_rankings_history` for the included historical rankings
`fp_injury_table` for the historical injury table
`vignette("custom")` for usage details.

Examples

```
# cached data
scoring_history <- .ffs_cache("mfl_scoring_history.rds")

ffs_adp_outcomes(scoring_history, gp_model = "simple")
ffs_adp_outcomes(scoring_history, gp_model = "none")
```

ffs_adp_outcomes_week *Connects ff_scoringhistory to past ADP rankings*

Description

The backbone of the ffsimulator resampling process is coming up with a population of weekly outcomes for every inseason weekly rank. This function creates that dataframe by connecting historical FantasyPros.com rankings to nflfastR-based scoring data, as created by `ffscraper::ff_scoringhistory()`.

Usage

```
ffs_adp_outcomes_week(scoring_history, pos_filter = c("QB", "RB", "WR", "TE"))
```

Arguments

`scoring_history` a scoring history table as created by `ffscraper::ff_scoringhistory()`

`pos_filter` a character vector: filter the positions returned to these specific positions, default: `c("QB","RB","WR","TE")`

Value

a dataframe with position, rank, probability of games played, and a corresponding nested list per row of all week score outcomes.

See Also

`fp_rankings_history_week` for the included historical rankings

Examples

```
# cached data
scoring_history <- .ffs_cache("mfl_scoring_history.rds")
ffs_adp_outcomes_week(scoring_history, pos_filter = c("QB","RB","WR","TE"))
```

ffs_build_schedules *Generate fantasy schedules*

Description

This function generates random head to head schedules for a given number of seasons, teams, and weeks.

Usage

```
ffs_build_schedules(  
  n_teams = NULL,  
  n_seasons = 100,  
  n_weeks = 14,  
  franchises = NULL,  
  seed = NULL  
)
```

Arguments

n_teams	number of teams in simulation
n_seasons	number of seasons to simulate, default = 100
n_weeks	number of weeks per season, default = 14
franchises	optional: a dataframe of franchises as created by ffs_franchises() - overrides the n_teams argument and will attach actual franchise IDs to the schedule output.
seed	an integer to control reproducibility

Details

It starts with the [circle method for round robin scheduling](#), grows or shrinks the schedule to match the required number of weeks, and then shuffles both the order that teams are assigned in and the order that weeks are generated. This doesn't "guarantee" unique schedules, but there are $n_teams! \times n_weeks!$ permutations of the schedule so it's very very likely that the schedules are unique (3×10^{18} possible schedules for a 12 team league playing 13 weeks).

Value

a dataframe of schedules

See Also

[vignette\("custom"\)](#) for example usage

Examples

```
ffs_build_schedules(n_teams = 12, n_seasons = 1, n_weeks = 14)
```

ffs_copy_template	<i>Copy simulation template to filename</i>
-------------------	---

Description

Creates a simulation template file with all of the components of `ff_simulate`, ready for tinkering!

Usage

```
ffs_copy_template(  
  filename = "ff_simulation.R",  
  template = c("season", "week"),  
  overwrite = NULL  
)
```

Arguments

filename	New file name, defaults to putting "ff_simulation.R" into your current directory
template	choice of template: one of "season" or "week"
overwrite	a logical (or NULL) - overwrite if existing file found?

Value

a success message signalling success/failure.

Examples

```
tmp <- tempfile()  
ffs_copy_template(tmp)
```

`ffs_franchises`*Get Franchises*

Description

This function lightly wraps `ffscraper::ff_franchises()` and adds `league_id`, which is a required column for `ffsimulator`.

Usage

```
ffs_franchises(conn)
```

Arguments

`conn` a connection object as created by `ffscraper::ff_connect()` and friends.

Value

a dataframe of franchises that includes the `league_id` column

See Also

`vignette("Custom Simulations")` for more detailed example usage

Examples

```
# cached examples
conn <- .ffs_cache("mfl_conn.rds")

try({ # prevents CRAN connectivity issues, not actually required in normal usage
ffs_franchises(conn)
})
```

`ffs_generate_projections`*Generate Projections*

Description

Runs the bootstrapped resampling of player week outcomes on the latest rankings and rosters for a given number of seasons and weeks per season.

Usage

```
ffs_generate_projections(  
  adp_outcomes,  
  latest_rankings,  
  n_seasons = 100,  
  weeks = 1:14,  
  rosters = NULL  
)
```

Arguments

adp_outcomes	a dataframe of adp-based weekly outcomes, as created by ffs_adp_outcomes()
latest_rankings	a dataframe of rankings, as created by ffs_latest_rankings()
n_seasons	number of seasons, default is 100
weeks	a numeric vector of weeks to simulate, defaults to 1:14
rosters	a dataframe of rosters, as created by ffs_rosters() - optional, reduces computation to just rostered players

Value

a dataframe of weekly scores for each player in the simulation, approximately of length n_seasons x n_weeks x latest_rankings

See Also

vignette("custom") for example usage

Examples

```
# cached examples  
adp_outcomes <- .ffs_cache("adp_outcomes.rds")  
latest_rankings <- .ffs_cache("latest_rankings.rds")  
  
ffs_generate_projections(adp_outcomes, latest_rankings)
```

ffs_generate_projections_week
Generate Projections

Description

Runs the bootstrapped resampling of player week outcomes on the latest rankings and rosters for a given number of seasons and weeks per season.

Usage

```
ffs_generate_projections_week(
  adp_outcomes,
  latest_rankings,
  n = 1000,
  rosters = NULL
)
```

Arguments

`adp_outcomes` a dataframe of adp-based weekly outcomes, as created by `ffs_adp_outcomes()`

`latest_rankings` a dataframe of rankings, as created by `ffs_latest_rankings()`

`n` number of weeks to simulate

`rosters` a dataframe of rosters, as created by `ffs_rosters()` - optional, reduces computation to just rostered players

Value

a dataframe of weekly scores for each player in the simulation, approximately of length `n_seasons` x `n_weeks` x `latest_rankings`

See Also

`vignette("custom")` for example usage

Examples

```
# cached examples
adp_outcomes_week <- .ffs_cache("adp_outcomes_week.rds")
latest_rankings_week <- .ffs_cache("latest_rankings_week.rds")

ffs_generate_projections_week(adp_outcomes_week, latest_rankings_week)
```

`ffs_latest_rankings` *Download latest rankings from DynastyProcess GitHub*

Description

Fetches a copy of the latest FantasyPros redraft positional rankings data from DynastyProcess.com's data repository.

Usage

```
ffs_latest_rankings(type = c("draft", "week"))
```

Arguments

type one of "draft" or "week" - controls whether to pull preseason or inseason rankings.

Details

If you have any issues with the output of this data, please open an issue in the DynastyProcess data repository.

Value

a dataframe with a copy of the latest FP rankings from DynastyProcess's data repository

See Also

<https://github.com/dynastyprocess/data>
vignette("custom") for example usage

Examples

```
try({ # try block to prevent CRAN-related issues
ffs_latest_rankings()
})
```

ffs_optimise_lineups *Optimise Lineups*

Description

Calculates optimal lineups for all franchises in the dataframe based on a table of lineup constraints.

Usage

```
ffs_optimise_lineups(
  roster_scores,
  lineup_constraints,
  lineup_efficiency_mean = 0.775,
  lineup_efficiency_sd = 0.05,
  best_ball = FALSE,
  pos_filter = c("QB", "RB", "WR", "TE")
)

ffs_optimize_lineups(
  roster_scores,
```

```

    lineup_constraints,
    lineup_efficiency_mean = 0.775,
    lineup_efficiency_sd = 0.05,
    best_ball = FALSE,
    pos_filter = c("QB", "RB", "WR", "TE")
  )

```

Arguments

roster_scores a dataframe as generated by `ffs_score_rosters()` - should contain columns like: `projected_score`, `pos`, and `player_id`

lineup_constraints a dataframe as generated by `ffscraper::ff_starter_positions()` - should contain columns `pos`, `min`, `max`, and `offense_starters`

lineup_efficiency_mean the average lineup efficiency to use, defaults to 0.775

lineup_efficiency_sd the standard deviation of lineup efficiency, defaults to 0.05

best_ball a logical: `FALSE` will apply a lineup efficiency factor and `TRUE` uses optimal scores as actual scores, default = `FALSE`

pos_filter a character vector specifying which positions are eligible - defaults to `c("QB", "RB", "WR", "TE")`

Details

Lineup efficiency is the percentage of optimal/best-ball score that is used as the actual score - by default, the lineup efficiency for a team in non-best-ball settings is normally distributed around a mean of 77.5% and a standard deviation of 5%.

Value

a dataframe of what each team scored for each week

See Also

`vignette("custom")` for example usage

Examples

```

# cached examples
roster_scores <- .ffs_cache("roster_scores.rds")
lineup_constraints <- .ffs_cache("mfl_lineup_constraints.rds")

ffs_optimise_lineups(roster_scores, lineup_constraints)

```

ffs_repeat_schedules *Repeat fantasy schedules*

Description

This function repeats an actual ffs_schedule() by the appropriate number of seasons.

Usage

```
ffs_repeat_schedules(actual_schedule, n_seasons)
```

Arguments

actual_schedule
a schedule retrieved by ffs_schedule()
n_seasons
number of seasons to simulate, default = 100

Value

a dataframe of schedules for the simulation

See Also

vignette("Custom Simulations") for example usage

Examples

```
try({ # try block to prevent CRAN-related issues
  conn <- .ffs_cache("mfl_conn.rds") # cached connection
  actual_schedule <- ffs_schedule(conn)

  ffs_repeat_schedules(actual_schedule = actual_schedule, n_seasons = 10)
})
```

ffs_rosters *Get Rosters*

Description

This function lightly wraps ffscraper::ff_rosters() and adds fantasypros_id, which is a required column for ffsimulator.

Usage

```
ffs_rosters(conn)

## S3 method for class 'mfl_conn'
ffs_rosters(conn)

## S3 method for class 'sleeper_conn'
ffs_rosters(conn)

## S3 method for class 'flea_conn'
ffs_rosters(conn)

## S3 method for class 'espn_conn'
ffs_rosters(conn)
```

Arguments

conn a connection object as created by `ffscraper::ff_connect()` and friends.

Value

a dataframe of rosters that includes a `fantasypros_id` column

See Also

`vignette("custom")` for more detailed example usage

Examples

```
# cached examples
conn <- .ffs_cache("mfl_conn.rds")

try({ # prevents CRAN connectivity issues, not actually required in normal usage
  ffs_rosters(conn)
})
```

ffs_schedule

Get Schedule

Description

This function lightly wraps `ffscraper::ff_schedule()` and adds `league_id`, which is a required column for `ffsimulator`, casts IDs to character, and drops actual games played so as to only simulate unplayed games.

Usage

```
ffs_schedule(conn)
```

Arguments

conn a connection object as created by `ffscrapr::ff_connect()` and friends.

Value

a dataframe of schedule that includes the `league_id` column

See Also

`vignette("Custom Simulations")` for more detailed example usage

Examples

```
# cached examples
try({ # try block to prevent CRAN-related issues
  conn <- .ffs_cache("mfl_conn.rds")
  ffs_schedule(conn)
})
```

ffs_score_rosters *Join Rosters to Projected Scores*

Description

Attaches projected scores to rosters (via an inner-join) and creates a positional ranking column.

Usage

```
ffs_score_rosters(projected_scores, rosters)
```

Arguments

projected_scores a dataframe of projected scores, as created by `ffs_generate_projections()`

rosters a dataframe of rosters, as created by `ffs_rosters()`

Value

A dataframe of roster-level projected scores

See Also

vignette("custom") for example usage

Examples

```
# cached examples
projected_scores <- .ffs_cache("projected_scores.rds")
rosters <- .ffs_cache("mfl_rosters.rds")

ffs_score_rosters(projected_scores, rosters)
```

ffs_starter_positions *Get league starter positions*

Description

This function lightly wraps `ffscraper::ff_starter_positions()` and cleans up some abbreviations (PK -> K)

Usage

```
ffs_starter_positions(conn)
```

Arguments

conn a connection object as created by `ffscraper::ff_connect()` and friends.

Value

A tidy dataframe of positional lineup rules, one row per position with minimum and maximum starters as well as total starter calculations.

Examples

```
# cached examples
try({ # try block to prevent CRAN-related issues
  conn <- .ffs_cache("mfl_conn.rds")
  ffs_starter_positions(conn)
})
```

ffs_summarise_week *Summarise simulation outputs*

Description

These functions are used to summarise the simulation outputs, typically by joining the optimal scores with a matching schedule.

Usage

```
ffs_summarise_week(optimal_scores, schedules)
```

```
ffs_summarise_season(summary_week)
```

```
ffs_summarise_simulation(summary_season)
```

```
ffs_summarise_inseason(summary_week, n)
```

```
ffs_summarize_week(optimal_scores, schedules)
```

```
ffs_summarize_season(summary_week)
```

```
ffs_summarize_simulation(summary_season)
```

Arguments

`optimal_scores` a dataframe of optimized lineups as created by `ffs_optimize_lineups()`
`schedules` a dataframe of schedules as created by `ffs_build_schedules()` or `ffs_actual_schedules()`
`summary_week` a dataframe as created by `ffs_summarise_week()`
`summary_season` a dataframe as created by `ffs_summarise_season()`
`n` number of weeks

Value

`ffs_summarise_week`: a dataframe summarising team results by simulation week

`ffs_summarise_season`: a dataframe summarising franchise results across each simulation season

`ffs_summarise_simulation`: a dataframe summarising franchise results across the simulation

`ffs_summarise_inseason`: a dataframe summarising franchise results for the inseason simulation

See Also

`vignette("custom")` for example usage

Examples

```
# cached examples
optimal_scores <- .ffs_cache("optimal_scores.rds")
schedules <- .ffs_cache("schedules.rds")

summary_week <- ffs_summarise_week(optimal_scores, schedules)
summary_week
summary_season <- ffs_summarise_season(summary_week)
summary_season
summary_simulation <- ffs_summarise_simulation(summary_season)
summary_simulation
```

ff_connect	<i>Connect to a league</i>
------------	----------------------------

Description

See `ffscrapr::ff_connect()` for details.

Value

a connection object to be used with `ff_*` functions

See Also

Other `ffscrapr`-imports: [espn_connect\(\)](#), [ff_scoringhistory\(\)](#), [ff_starter_positions\(\)](#), [fleaflipper_connect\(\)](#), [mfl_connect\(\)](#), [sleeper_connect\(\)](#)

ff_scoringhistory	<i>Get league scoring history</i>
-------------------	-----------------------------------

Description

See `ffscrapr::ff_scoringhistory` for details.

Value

A tidy dataframe of weekly fantasy scoring data, one row per player per week

See Also

Other `ffscrapr`-imports: [espn_connect\(\)](#), [ff_connect\(\)](#), [ff_starter_positions\(\)](#), [fleaflipper_connect\(\)](#), [mfl_connect\(\)](#), [sleeper_connect\(\)](#)

ff_simulate

*Simulate Fantasy Seasons***Description**

The main function of the package - uses bootstrap resampling to run fantasy football season simulations supported by historical rankings and nflfastR data, calculating optimal lineups, and returns aggregated results.

Usage

```
ff_simulate(
  conn,
  n_seasons = 100,
  n_weeks = 14,
  best_ball = FALSE,
  seed = NULL,
  gp_model = c("simple", "none"),
  base_seasons = 2012:2020,
  actual_schedule = FALSE,
  replacement_level = TRUE,
  pos_filter = c("QB", "RB", "WR", "TE", "K"),
  verbose = NULL,
  return = c("default", "all")
)
```

Arguments

conn	an connection to a league made with <code>ff_connect()</code> and friends (required)
n_seasons	number of seasons to simulate, default = 100
n_weeks	number of weeks per season, default = 14
best_ball	a logical: are weekly wins based on optimal lineups?
seed	an integer to control reproducibility
gp_model	select between "simple", "none" to apply a model for whether a player played in a given game, defaults to "simple"
base_seasons	a numeric vector that selects seasons as base data, earliest available is 2012
actual_schedule	a logical: use actual <code>ff_schedule</code> ? default is FALSE
replacement_level	a logical: use best available on waiver as replacement level? defaults to TRUE
pos_filter	a character vector of positions to filter/run, default is <code>c("QB","RB","WR","TE","K")</code>
verbose	a logical: print status messages? default is TRUE, configure with <code>options(ffsimulator.verbose)</code>
return	one of <code>c("default", "all")</code> - what objects to return in the output list

Value

an `ff_simulation` object which can be passed to `plot()` and contains the output data from the simulation.

See Also

`vignette("basic")` for example usage

`vignette("custom")` for examples on using the subfunctions for your own processes.

Examples

```
try({ # try block to prevent CRAN-related issues
  conn <- mfl_connect(2021, 22627)
  ff_simulate(conn, n_seasons = 25)
})
```

 ff_simulate_week

Simulate Fantasy Week

Description

This function simulates a single upcoming week using the same methodology as in the season-long simulation, `ff_simulate()`.

Usage

```
ff_simulate_week(
  conn,
  n = 1000,
  best_ball = FALSE,
  seed = NULL,
  base_seasons = 2012:2020,
  actual_schedule = TRUE,
  replacement_level = FALSE,
  pos_filter = c("QB", "RB", "WR", "TE", "K"),
  verbose = NULL,
  return = c("default", "all")
)
```

Arguments

<code>conn</code>	an connection to a league made with <code>ff_connect()</code> and friends (required)
<code>n</code>	number of times to simulate the upcoming week, default is 1000
<code>best_ball</code>	a logical: are weekly wins based on optimal lineups?

seed	an integer to control reproducibility
base_seasons	a numeric vector that selects seasons as base data, earliest available is 2012
actual_schedule	a logical: use actual ff_schedule? default is TRUE
replacement_level	a logical: use best available on waiver as replacement level? defaults to FALSE for upcoming week simulations
pos_filter	a character vector of positions to filter/run, default is c("QB", "RB", "WR", "TE", "K")
verbose	a logical: print status messages? default is TRUE, configure with options(ffsimulator.verbose)
return	one of c("default", "all") - what objects to return in the output list

Value

an `ff_simulation` object which can be passed to `plot()` and contains the output data from the simulation.

See Also

`vignette("basic")` for example usage

`vignette("custom")` for examples on using the subfunctions for your own processes.

Examples

```
try({ # try block to prevent CRAN-related issues
  conn <- mfl_connect(2021, 22627)
  ff_simulate_week(conn, n = 1000, actual_schedule = TRUE)
})
```

`ff_starter_positions` *Get league starter positions*

Description

See `ffscrapr::ff_starter_positions` for details.

Value

A tidy dataframe of positional lineup rules, one row per position with minimum and maximum starters as well as total starter calculations.

See Also

Other `ffscrapr`-imports: [espn_connect\(\)](#), [ff_connect\(\)](#), [ff_scoringhistory\(\)](#), [fleaflicker_connect\(\)](#), [mfl_connect\(\)](#), [sleeper_connect\(\)](#)

ff_wins_added	<i>Wins Added</i>
---------------	-------------------

Description

(EXPERIMENTAL) This function adds a basic wins-added calculation for each player on every team, presenting the change in wins if that player was removed from the team as the net wins-over-replacement for that player. This can be a bit of a time/compute-expensive calculation.

Usage

```
ff_wins_added(conn, ...)
```

Arguments

conn	an connection to a league made with <code>ff_connect()</code> and friends (required)
...	Arguments passed on to <code>ff_simulate</code>
n_seasons	number of seasons to simulate, default = 100
n_weeks	number of weeks per season, default = 14
best_ball	a logical: are weekly wins based on optimal lineups?
seed	an integer to control reproducibility
gp_model	select between "simple", "none" to apply a model for whether a player played in a given game, defaults to "simple"
base_seasons	a numeric vector that selects seasons as base data, earliest available is 2012
actual_schedule	a logical: use actual <code>ff_schedule</code> ? default is FALSE
replacement_level	a logical: use best available on waiver as replacement level? defaults to TRUE
pos_filter	a character vector of positions to filter/run, default is <code>c("QB", "RB", "WR", "TE", "K")</code>
verbose	a logical: print status messages? default is TRUE, configure with <code>options(ffsimulator.verbose)</code>
return	one of <code>c("default", "all")</code> - what objects to return in the output list

Details

Runs base simulation once (with the usual parameters available for `ff_simulate`), then for every player on every team (except replacement level players):

- remove them from that specific roster
- reoptimize the lineups just for that roster without the player to calculate what the score ends up being without the player
- summarise the new simulation
- return the delta in wins and points

Summarise wins added as the difference between the sim with the player and the sim without them

Value

a dataframe summarising the net effect of each player on their team's wins

Examples

```
try({ # try block to prevent CRAN-related issues
# n_seasons set so that the example runs more quickly
ff_wins_added(mfl_connect(2021,54040), n_seasons = 5)
})
```

fleaflicker_connect *Connect to a league*

Description

See `ffscraper::fleaflicker_connect()` for details.

Value

a connection object to be used with `ff_*` functions

See Also

Other `ffscraper`-imports: [espn_connect\(\)](#), [ff_connect\(\)](#), [ff_scoringhistory\(\)](#), [ff_starter_positions\(\)](#), [mfl_connect\(\)](#), [sleeper_connect\(\)](#)

fp_injury_table *FP injury table*

Description

This dataframe contains a column (`prob_gp`) for each positional ranking that describes the probability of a player with that preseason ADP playing in a given game. It is modelled from historical rankings data and the number of games played per season for a given positional rank.

Usage

```
fp_injury_table
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 692 rows and 3 columns.

fp_rankings_history *Historical draft position ranks*

Description

This dataframe has historical positional draft rankings for 2012-2020 QB/RB/WR/TE/PK and 2015-2020 DL/LB/DB, as gathered by the ffpros package.

Usage

```
fp_rankings_history
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 10749 rows and 10 columns.

fp_rankings_history_week
 Historical position ranks

Description

This dataframe has historical positional in-season rankings for 2012-2020 QB/RB/WR/TE/PK and 2015-2020 DL/LB/DB, as gathered by the ffpros package.

Usage

```
fp_rankings_history_week
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 76224 rows and 11 columns.

mfl_connect	<i>Connect to a league</i>
-------------	----------------------------

Description

See `ffscraper::mfl_connect()` for details.

Value

a connection object to be used with `ff_*` functions

See Also

Other `ffscraper`-imports: [espn_connect\(\)](#), [ff_connect\(\)](#), [ff_scoringhistory\(\)](#), [ff_starter_positions\(\)](#), [fleaflicker_connect\(\)](#), [sleeper_connect\(\)](#)

sleeper_connect	<i>Connect to a league</i>
-----------------	----------------------------

Description

See `ffscraper::sleeper_connect()` for details.

Value

a connection object to be used with `ff_*` functions

See Also

Other `ffscraper`-imports: [espn_connect\(\)](#), [ff_connect\(\)](#), [ff_scoringhistory\(\)](#), [ff_starter_positions\(\)](#), [fleaflicker_connect\(\)](#), [mfl_connect\(\)](#)

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