Package ‘ffscrapr’

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Type Package

Title API Client for Fantasy Football League Platforms

Version 1.4.5

Description Helps access various Fantasy Football APIs by handling authentication and rate-limiting, forming appropriate calls, and returning tidy dataframes which can be easily connected to other data sources.

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BugReports https://github.com/ffverse/ffscrapr/issues

Depends R (>= 3.0.0)

Imports cachem (>= 1.0.0), checkmate (>= 2.0.0), dplyr (>= 1.0.0), glue (>= 1.3.0), httr (>= 1.4.0), jsonlite (>= 1.6.0), lifecycle, lubridate (>= 1.5.0), magrittr (>= 1.5.0), memoise (>= 2.0.0), purrr (>= 0.3.0), rappdirs (>= 0.3.0), ratelimitr (>= 0.4.0), rlang (>= 0.3.0), tibble (>= 3.0.0), tidyverse (>= 1.0.0)

Suggests covr (>= 3.0.0), curl (>= 4.0.0), httptest (>= 3.0.0), knitr (>= 1.0.0), markdown (>= 2.6), testthat (>= 2.1.0), withr (>= 2.4.0)

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R topics documented:

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Description

This function will reset the cache for any and all ffscrapr cached functions.

Usage

```
.ff_clear_cache()
```

---

dp_cleannames  Clean Names

Description

Applies some name-cleaning heuristics to facilitate joins. These heuristics may include:

- removing periods and apostrophes
- removing common suffixes, such as Jr, Sr, II, III, IV
- converting to lowercase
- using \texttt{dp\_name\_mapping} to do common name substitutions, such as Mitch Trubisky to Mitchell Trubisky

Usage

```
dp_cleannames(
    player_name,
    lowercase = FALSE,
    convert_lastfirst = TRUE,
    use_name_database = TRUE
)
```

```
dp_clean_names(
    player_name,
    lowercase = FALSE,
    convert_lastfirst = TRUE,
    use_name_database = TRUE
)
```
dp_clean_html

Remove HTML from string

Description

Applies some regex to clean html tags from strings. This is useful for platforms such as MFL that interpret HTML in their franchise name fields.

Usage

dp_clean_html(names)

Arguments

names a character (or character vector)

Value

a character vector of cleaned strings

Arguments

player_name a character (or character vector)
lowercase defaults to FALSE - if TRUE, converts to lowercase
convert_lastfirst converts names from "Last, First" to "First Last" (i.e. MFL style)
use_name_database uses internal name database to do common substitutions (Mitchell Trubisky to Mitch Trubisky etc)

Value

a character vector of cleaned names

See Also

dp_name_mapping

Examples

dp_cleannames(c("A.J. Green", "Odell Beckham Jr.", "Le'Veon Bell Sr.")

dp_cleannames(c("Trubisky, Mitch", "Atwell, Chatarius", "Elliott, Zeke", "Elijah Moore"),
convert_lastfirst = TRUE,
use_name_database = TRUE)
Examples

c("<b><font color= Cyan>Kevin OBrien (@kevinobrienff) </FONT></B>", 
"<em><font color= Purple> Other fun names</font></em>") %>% dp_clean_html()

---

dp_name_mapping

Alternate name mappings

Description

A named character vector mapping common alternate names

Usage

dp_name_mapping

Format

A named character vector

name attribute The "alternate" name.

value attribute The "correct" name.

Examples

dp_name_mapping[c("Chatarius Atwell", "Robert Kelley")]

---

dp_playerids

Import latest DynastyProcess player IDs

Description

Fetches a copy of the latest DynastyProcess player IDs csv

Usage

dp_playerids()

Value

a tibble of player IDs
See Also

https://github.com/DynastyProcess/data

Examples

```r
try( # try only shown here because sometimes CRAN checks are weird
dp_playerids()
)
```

---

dp_values

*Import latest DynastyProcess values*

Description

Fetches a copy of the latest DynastyProcess dynasty trade values sheets

Usage

```r
dp_values(file = c("values.csv", "values-players.csv", "values-picks.csv"))
```

Arguments

- **file**: one of c("values.csv", "values-players.csv", "values-picks.csv")

Value

A tibble of trade values from DynastyProcess

See Also

https://github.com/DynastyProcess/data

Examples

```r
try( # try only shown here because sometimes CRAN checks are weird
dp_values()
)
```
Description

This function creates a connection object which stores parameters and a user ID if available.

Usage

```r
espn_connect(
  season = NULL,
  league_id = NULL,
  swid = NULL,
  espn_s2 = NULL,
  user_agent = NULL,
  rate_limit = TRUE,
  rate_limit_number = NULL,
  rate_limit_seconds = NULL,
  ...
)
```

Arguments

- **season**: Season to access on Fleaflicker - if missing, will guess based on system date (current year if March or later, otherwise previous year)
- **league_id**: League ID
- **swid**: SWID parameter for accessing private leagues - see vignette for details
- **espn_s2**: ESPN_S2 parameter for accessing private leagues - see vignette for details
- **user_agent**: User agent to self-identify (optional)
- **rate_limit**: TRUE by default - turn off rate limiting with FALSE
- **rate_limit_number**: number of calls per rate_limit_seconds, suggested is under 1000 calls per 60 seconds
- **rate_limit_seconds**: number of seconds as denominator for rate_limit
- **...**: other arguments (for other methods, for R compat)

Value

- a list that stores ESPN connection objects
**Examples**

```r
cnn <- espn_connect(
  season = 2018,
  league_id = 1178049,
  espn_s2 = Sys.getenv("TAN_ESPN_S2"),
  swid = Sys.getenv("TAN_SWID")
)
```

<table>
<thead>
<tr>
<th>espn_getendpoint</th>
<th>GET ESPN fantasy league endpoint</th>
</tr>
</thead>
</table>

**Description**

This function is used to call the ESPN Fantasy API for league-based endpoints.

**Usage**

```r
espn_getendpoint(conn, ..., x_fantasy_filter = NULL)
```

**Arguments**

- **conn**: a connection object created by `espn_connect` or `ff_connect()`
- **...**: Arguments which will be passed as "argumentname = argument" in an HTTP query parameter
- **x_fantasy_filter**: a JSON-encoded character string that specifies a filter for the data

**Details**

The ESPN Fantasy API is undocumented and this should be used by advanced users familiar with the API.

It chooses the correct league endpoint based on the year (e.g., leagueHistory for <2018), checks the `x_fantasy_filter` for valid JSON input, builds a URL with any optional query parameters, and executes the request with authentication and rate limiting.

HTTP query parameters (i.e., arguments to ...) are Case Sensitive.

Please see the vignette for more on usage.

**Value**

A list object containing the query, response, and parsed content.

**See Also**

- vignette("espn_getendpoint")
- espn_getendpoint_raw
espn_getendpoint_raw  GET ESPN endpoint (raw)

Description
This function is the lower-level function that powers the API call: it takes a URL and headers and executes the http request with rate-limiting and authentication. It checks for JSON return and any warnings/errors, parses the json, and returns an espn_api object with the parsed content, the raw response, and the actual query.

Usage
espn_getendpoint_raw(conn, url_query, ...)

Arguments
- conn: a connection object created by ff_connect or equivalent - used for authentication
- url_query: a fully-formed URL to call
- ...: any headers or other httr request objects to pass along

Value
object of class espn_api with parsed content, request, and response

See Also
espn_getendpoint() - a higher level wrapper that checks JSON and prepares the url query
vignette("espn_getendpoint")

espn_players  ESPN players library

Description
A cached table of ESPN NFL players. Will store in memory for each session! (via memoise in zzz.R)

Usage
espn_players(conn = NULL, season = NULL)

Arguments
- conn: a connection object created by espn_connect or ff_connect()
- season: a season to fetch
Value

a dataframe containing all ~2000+ active players in the ESPN database

Examples

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 1178049)
  espn_players(conn, season = 2020)
}) # end try

espn_potentialpoints ESPN Potential Points

Description

This function calculates the optimal starters for a given week, using some lineup heuristics.

Usage

espn_potentialpoints(conn, weeks = 1:17)

Arguments

conn the list object created by ff_connect()
weeks a numeric vector for determining which weeks to calculate

Value

a tibble with the best lineup for each team and whether they were started or not

Examples

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  espn_potentialpoints(conn, weeks = 1:3)
}) # end try
**Description**

This function creates a connection object which stores parameters and gets a login-cookie if available - it does so by passing arguments to the appropriate league-based handler.

**Usage**

```r
ff_connect(platform = "mfl", league_id = NULL, ...)
```

**Arguments**

- `platform`: one of MFL or Sleeper (Fleaflicker, ESPN, Yahoo in approximate priority order going forward)
- `league_id`: league_id (currently assuming one league at a time)
- `...`: other parameters passed to the connect function for each specific platform.

**Value**

a connection object to be used with ff_* functions

**See Also**

`mfl_connect()`, `sleeper_connect()`, `fleaflicker_connect()`, `espn_connect()`

**Examples**

```r
ff_connect(platform = "mfl", season = 2019, league_id = 54040, rate_limit = FALSE)
```

---

**Description**

This function gets a tidy dataframe of draft results for the current year. Can handle MFL devy drafts or startup drafts by specifying the custom_players argument.
Usage

ff_draft(conn, ...)

## S3 method for class 'espn_conn'
ff_draft(conn, ...)

## S3 method for class 'flea_conn'
ff_draft(conn, ...)

## S3 method for class 'mfl_conn'
ff_draft(conn, custom_players = deprecated(), ...)

## S3 method for class 'sleeper_conn'
ff_draft(conn, ...)

Arguments

conn a conn object created by ff_connect()

... args for other methods

custom_players [Deprecated] - now returns custom players by default

Value

A tidy dataframe of draft results

Methods (by class)

• espn_conn: ESPN: returns the current year’s draft/auction, including details on keepers
• flea_conn: Fleaflicker: returns a table of drafts for the current year
• mfl_conn: MFL: returns a table of drafts for the current year - can handle devy/startup-rookie-picks by specifying custom_players (slower!)
• sleeper_conn: Sleeper: returns a dataframe of all drafts and draft selections, if available.

Examples

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  ff_draft(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(season = 2020, league_id = 206154)
  ff_draft(conn)
}) # end try
try({ # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_draft(ssb_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_draft(jml_conn)
}) # end try

### ff_draftpicks

**Get Draft Picks**

**Description**

Returns all draft picks (current and future) that belong to a specific franchise and have not yet been converted into players (i.e. selected.)

**Usage**

```r
ff_draftpicks(conn, ...)
```

---

**Arguments**

- `conn`: the list object created by `ff_connect()`
- `...`: other arguments (currently unused)
- `franchise_id`: A list of franchise IDs to pull, if NULL will return all franchise IDs

**Value**

Returns a dataframe with current and future draft picks for each franchise.
Methods (by class)

- **espn_conn**: ESPN: does not support future/draft pick trades - for draft results, please use **ff_draft**.
- **flea_conn**: Fleaflicker: retrieves current and future draft picks, potentially for a specified team.
- **mfl_conn**: MFL: returns current and future picks
- **sleeper_conn**: Sleeper: retrieves current and future draft picks

Examples

```r
try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(
    season = 2018,
    league_id = 1178049,
    espn_s2 = Sys.getenv("TAN_ESPN_S2"),
    swid = Sys.getenv("TAN_SWID")
  )
  ff_draftpicks(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(2020, 206154)
  ff_draftpicks(conn, franchise_id = 1373475)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  dlf_conn <- mfl_connect(2020, league_id = 37920)
  ff_draftpicks(conn = dlf_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_draftpicks(jml_conn)
}) # end try
```
**Description**

Return franchise-level data (including divisions, usernames, etc) - available data may vary slightly based on platform.

**Usage**

```r
ff_franchises(conn)
```

```r
## S3 method for class 'espn_conn'
ff_franchises(conn)
```

```r
## S3 method for class 'flea_conn'
ff_franchises(conn)
```

```r
## S3 method for class 'mfl_conn'
ff_franchises(conn)
```

```r
## S3 method for class 'sleeper_conn'
ff_franchises(conn)
```

**Arguments**

- `conn`: a conn object created by `ff_connect()`

**Value**

A tidy dataframe of franchises, complete with IDs

**Methods (by class)**

- `espn_conn`: ESPN: returns franchise and division information.
- `flea_conn`: Fleaflicker: returns franchise and division information.
- `mfl_conn`: MFL: returns franchise and division information.
- `sleeper_conn`: Sleeper: retrieves a list of franchise information, including user IDs and co-owner IDs.

**Examples**

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 1178049)
  ff_franchises(conn)
})
```
try({ # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(season = 2020, league_id = 206154)
  ff_franchises(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_franchises(ssb_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "52245877317046272", season = 2020)
  ff_franchises(jml_conn)
}) # end try

---

**ff_league**  
*Get League Summary*

**Description**

This function returns a tidy dataframe of common league settings, including details like "1QB" or "2QB/SF", scoring, best ball, team count, IDP etc. This is potentially useful in summarising the features of multiple leagues.

**Usage**

```r
ff_league(conn)
```

```r
## S3 method for class 'espn_conn'
ff_league(conn)
```

```r
## S3 method for class 'flea_conn'
ff_league(conn)
```

```r
## S3 method for class 'mfl_conn'
ff_league(conn)
```

```r
## S3 method for class 'sleeper_conn'
ff_league(conn)
```

**Arguments**

`conn` the connection object created by `ff_connect()`
Value

A one-row summary of each league’s main features.

Methods (by class)

- espn_conn: ESPN: returns a summary of league features.
- flea_conn: Flea: returns a summary of league features.
- mfl_conn: MFL: returns a summary of league features.
- sleeper_conn: Sleeper: returns a summary of league features.

Examples

```r
try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  ff_league(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(2020, 206154)
  ff_league(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_league(ssb_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_league(jml_conn)
}) # end try
```

ff_playerscores

Get Player Scoring History

Description

This function returns a tidy dataframe of player scores based on league rules.

Unfortunately, Sleeper has deprecated their player stats endpoint from their supported/open API. Please see `ff_scoringhistory()` for an alternative reconstruction.
Usage

```r
ff_playerscores(conn, ...)
```

## S3 method for class 'espn_conn'
```r
ff_playerscores(conn, limit = 1000, ...)
```

## S3 method for class 'flea_conn'
```r
ff_playerscores(conn, page_limit = NULL, ...)
```

## S3 method for class 'mfl_conn'
```r
ff_playerscores(conn, season, week, ...)
```

## S3 method for class 'sleeper_conn'
```r
ff_playerscores(conn, ...)
```

Arguments

- `conn` the list object created by `ff_connect()`
- `...` other arguments (currently unused)
- `limit` A numeric describing the number of players to return - default 1000
- `page_limit` A numeric describing the number of pages to return - default NULL returns all available
- `season` the season of interest - generally only the most recent 2-3 seasons are available
- `week` a numeric vector (ie 1:17) or one of YTD (year-to-date) or AVG (average to date)

Value

A tibble of historical player scoring

Methods (by class)

- `espn_conn`: ESPN: returns total points for season and average per game, for both current and previous season.
- `flea_conn`: Fleaflicker: returns the season, season average, and standard deviation
- `mfl_conn`: MFL: returns the player fantasy scores for each week (not the actual stats)
- `sleeper_conn`: Sleeper: Deprecated their open API endpoint for player scores

See Also

`ff_scoringhistory`
**ff_rosters**

Get League Rosters

**Description**

This function returns a tidy dataframe of team rosters

**Usage**

```
ff_rosters(conn, ...)
```

```r
## S3 method for class 'espn_conn'
ff_rosters(conn, week = NULL, ...)
```

```r
## S3 method for class 'flea_conn'
ff_rosters(conn, ...)
```

```r
## S3 method for class 'mfl_conn'
ff_rosters(conn, custom_players = deprecated(), week = NULL, ...)
```

```r
## S3 method for class 'sleeper_conn'
ff_rosters(conn, ...)
```
Arguments

conn     a conn object created by `ff_connect()`
...     arguments passed to other methods (currently none)
week     a numeric that specifies which week to return
custom_players  "[Deprecated]" - now returns custom players by default

Value

A tidy dataframe of rosters, joined to basic player information and basic franchise information

Methods (by class)

- `espn_conn`: ESPN: Returns all roster data.
- `flea_conn`: Fleaflicker: Returns roster data (minus age as of right now)
- `mfl_conn`: MFL: returns roster data
- `sleeper_conn`: Sleeper: Returns all roster data.

Examples

```r
try({  # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  ff_league(conn)
}) # end try

try({  # try only shown here because sometimes CRAN checks are weird
  joe_conn <- ff_connect(platform = "fleaflicker", league_id = 312861, season = 2020)
  ff_rosters(joe_conn)
}) # end try

try({  # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_rosters(ssb_conn)
}) # end try

try({  # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_rosters(jml_conn)
}) # end try
```
**ff_schedule**

*Get Schedule*

**Description**

This function returns a tidy dataframe with one row for every team for every weekly matchup.

**Usage**

```r
ff_schedule(conn, ...)
```

```r
## S3 method for class 'espn_conn'
ff_schedule(conn, ...)
```

```r
## S3 method for class 'flea_conn'
ff_schedule(conn, week = 1:17, ...)
```

```r
## S3 method for class 'mfl_conn'
ff_schedule(conn, ...)
```

```r
## S3 method for class 'sleeper_conn'
ff_schedule(conn, ...)
```

**Arguments**

- `conn` a conn object created by `ff_connect()`
- `...` for other platforms
- `week` a numeric or numeric vector specifying which weeks to pull

**Value**

A tidy dataframe with one row per game per franchise per week

**Methods (by class)**

- `espn_conn`: ESPN: returns schedule data, one row for every franchise for every week. Completed games have result data.
- `flea_conn`: Flea: returns schedule data, one row for every franchise for every week. Completed games have result data.
- `mfl_conn`: MFL: returns schedule data, one row for every franchise for every week. Completed games have result data.
- `sleeper_conn`: Sleeper: returns all schedule data
Examples

```r
try({ # try only shown here because sometimes CRAN checks are weird
espn_conn <- espn_connect(season = 2020, league_id = 899513)
   ff_schedule(espn_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
conn <- fleaflicker_connect(season = 2019, league_id = 206154)
   ff_schedule(conn, week = 2:4)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
   ff_schedule(ssb_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
   ff_schedule(jml_conn)
}) # end try
```

---

**ff_scoring**  
*Get League Scoring Settings*

**Description**

This function returns a dataframe with detailed scoring settings for each league - broken down by event, points, and (if available) position.

**Usage**

```r
ff_scoring(conn)

## S3 method for class 'espn_conn'
ff_scoring(conn)

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

## S3 method for class 'mfl_conn'
```
ff_scoring

ff_scoring(conn)

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

**Arguments**

conn                  a conn object created by ff_connect()

**Value**

A tibble of league scoring rules for each position defined.

**Methods (by class)**

- espn_conn: ESPN: returns scoring settings in a flat table, override positions have their own scoring.
- flea_conn: Fleaflicker: returns scoring settings in a flat table, one row per position per rule.
- mfl_conn: MFL: returns scoring settings in a flat table, one row per position per rule.
- sleeper_conn: Sleeper: returns scoring settings in a flat table, one row per position per rule.

**See Also**

http://www03.myfantasyleague.com/2020/scoring_rules#rules

**Examples**

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  ff_scoring(conn)
}) # end try
```

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  joe_conn <- ff_connect(platform = "fleaflicker", league_id = 312861, season = 2020)
  ff_scoring(joe_conn)
}) # end try
```

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_scoring(ssb_conn)
}) # end try
```

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_scoring(jml_conn)
}) # end try
```
ff_scoringhistory

ff_scoring(jml_conn)
}) # end try

---

**Get League-Specific Scoring History**

**Description**

(Experimental!) This function reads your league’s ff_scoring rules and maps them to nflfastr week-level data. Not all of the scoring rules from your league may have nflfastr equivalents, but most of the common ones are available!

**Usage**

ff_scoringhistory(conn, season, ...)

## S3 method for class `espn_conn`
ff_scoringhistory(conn, season = 1999:2020, ...)

## S3 method for class `flea_conn`
ff_scoringhistory(conn, season = 1999:2020, ...)

## S3 method for class `mfl_conn`
ff_scoringhistory(conn, season = 1999:2020, ...)

## S3 method for class `sleeper_conn`
ff_scoringhistory(conn, season = 1999:2020, ...)

**Arguments**

- **conn**: a conn object created by ff_connect()
- **season**: season a numeric vector of seasons (earliest available year is 1999)
- **...**: other arguments

**Value**

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

**Methods (by class)**

- `espn_conn`: ESPN: returns scoring history in a flat table, one row per player per week.
- `flea_conn`: Fleaflicker: returns scoring history in a flat table, one row per player per week.
- `mfl_conn`: MFL: returns scoring history in a flat table, one row per player per week.
- `sleeper_conn`: Sleeper: returns scoring history in a flat table, one row per player per week.
**ff_standings**

Get Standings

**See Also**


**Examples**

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 899513)
  ff_scoringhistory(conn, season = 2020)
}) # end try

try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(2020, 312861)
  ff_scoringhistory(conn, season = 2020)
}) # end try

try({
  # try only shown here because sometimes CRAN checks are weird
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
  ff_scoringhistory(ssb_conn, season = 2020)
}) # end try

try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- ff_connect(platform = "sleeper", league_id = "5224587731046272", season = 2020)
  ff_scoringhistory(conn, season = 2020)
}) # end try
```

**Description**

This function returns a tidy dataframe of season-long fantasy team stats, including H2H wins as well as points, potential points, and all-play.

**Usage**

```r
ff_standings(conn, ...)
```

```r
## S3 method for class 'espn_conn'
ff_standings(conn, ...)
```
## S3 method for class 'flea_conn'
ff_standings(conn, include_allplay = TRUE, include_potentialpoints = TRUE, ...)

## S3 method for class 'mfl_conn'
ff_standings(conn, ...)

## S3 method for class 'sleeper_conn'
ff_standings(conn, ...)

### Arguments

- **conn**: a conn object created by ff_connect()
- **...**: arguments passed to other methods (currently none)
- **include_allplay**: TRUE/FALSE - return all-play win pct calculation? defaults to TRUE
- **include_potentialpoints**: TRUE/FALSE - return potential points calculation? defaults to TRUE.

### Value

A tidy dataframe of standings data

### Methods (by class)

- **espn_conn**: ESPN: returns standings and points data.
- **flea_conn**: Fleaflicker: returns H2H/points/all-play/best-ball data in a table.
- **mfl_conn**: MFL: returns H2H/points/all-play/best-ball data in a table.
- **sleeper_conn**: Sleeper: returns all standings and points data and manually calculates allplay results.

### Examples

```r
try({
  espn_conn <- espn_connect(season = 2020, league_id = 899513)
  ff_standings(espn_conn)
}) # end try

try({
  conn <- fleaflicker_connect(season = 2020, league_id = 206154)
  x <- ff_standings(conn)
}) # end try

try({
  ssb_conn <- ff_connect(platform = "mfl", league_id = 54040, season = 2020)
}) # end try
```
try({ # try only shown here because sometimes CRAN checks are weird
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_standings(jml_conn)
}) # end try

---

**ff_starters**

*Get Starting Lineups*

**Description**

This function returns a tidy dataframe with one row for every starter (and bench) for every week and their scoring, if available.

**Usage**

```r
ff_starters(conn, ...)
```

### S3 method for class 'espn_conn'

```r
ff_starters(conn, weeks = 1:17, ...)
```

### S3 method for class 'flea_conn'

```r
ff_starters(conn, week = 1:17, ...)
```

### S3 method for class 'mfl_conn'

```r
ff_starters(conn, week = 1:17, season = NULL, ...)
```

### S3 method for class 'sleeper_conn'

```r
ff_starters(conn, week = 1:17, ...)
```

**Arguments**

- `conn` the list object created by `ff_connect()`
- `...` other arguments (currently unused)
- `weeks` which weeks to calculate, a number or numeric vector
- `week` a numeric or one of YTD (year-to-date) or AVG (average to date)
- `season` the season of interest - generally only the most recent 2-3 seasons are available

**Value**

A tidy dataframe with every player for every week, including a flag for whether they were started or not.
Methods (by class)

- espn_conn: ESPN: returns who was started as well as what they scored.
- flea_conn: Fleaflicker: returns who was started as well as what they scored.
- mfl_conn: MFL: returns the player fantasy scores for each week (not the actual stats)
- sleeper_conn: Sleeper: returns only "who" was started, without any scoring/stats data. Only returns season specified in initial connection object.

Examples

try({ # try only shown here because sometimes CRAN checks are weird
    conn <- espn_connect(season = 2020, league_id = 1178049)
    ff_starters(conn, weeks = 1:3)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
    conn <- fleaflicker_connect(season = 2020, league_id = 206154)
    ff_starters(conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
    dlf_conn <- mfl_connect(2020, league_id = 37920)
    ff_starters(conn = dlf_conn)
}) # end try

try({ # try only shown here because sometimes CRAN checks are weird
    jml_conn <- sleeper_connect(league_id = "522458773317046272", season = 2020)
    ff_starters(jml_conn, week = 3)
}) # end try

---

**ff_starter_positions**  
*Get Starting Lineup Settings*

**Description**

This function returns a tidy dataframe with positional lineup rules.
Usage

`ff_starter_positions(conn, ...)`

```r
## S3 method for class 'espn_conn'
ff_starter_positions(conn, ...)
```

```r
## S3 method for class 'flea_conn'
ff_starter_positions(conn, ...)
```

```r
## S3 method for class 'mfl_conn'
ff_starter_positions(conn, ...)
```

```r
## S3 method for class 'sleeper_conn'
ff_starter_positions(conn, ...)
```

Arguments

- `conn`: the list object created by `ff_connect()`
- `...`: other arguments (currently unused)

Value

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

Methods (by class)

- `espn_conn`: ESPN: returns min/max starters for each main player position
- `flea_conn`: Fleaflicker: returns minimum and maximum starters for each player position.
- `mfl_conn`: MFL: returns minimum and maximum starters for each player position.
- `sleeper_conn`: Sleeper: returns minimum and maximum starters for each player position.

Examples

```r
try({ # try only shown here because sometimes CRAN checks are weird
  conn <- espn_connect(season = 2020, league_id = 1178049)
  ff_starter_positions(conn)
}) # end try
```

```r
try({ # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(season = 2020, league_id = 206154)
  ff_starter_positions(conn)
}) # end try
```
ff_transactions

Get League Transactions

Description

This function returns a tidy dataframe of transactions - generally one row per player per transaction per team. Each trade is represented twice, once per each team.

Usage

ff_transactions(conn, ...)

## S3 method for class 'espn_conn'
ff_transactions(conn, limit = 1000, ...)

## S3 method for class 'flea_conn'
ff_transactions(conn, franchise_id = NULL, ...)

## S3 method for class 'mfl_conn'
ff_transactions(conn, custom_players = deprecated(), ...)

## S3 method for class 'sleeper_conn'
ff_transactions(conn, week = 1:17, ...)

Arguments

conn          the list object created by ff_connect()
...
limit         number of most recent transactions to return
franchise_id   fleaflicker returns transactions grouped by franchise id, pass a list here to filter
custom_players [Deprecated] - now returns custom players by default
week          A week filter for transactions - 1 returns all offseason transactions. Default 1:17 returns all transactions.
**Value**

A tidy dataframe of transaction data

**Methods (by class)**

- `flea_conn`: FleaFlicker: returns all transactions, including free agents, waivers, and trades.
- `mfl_conn`: MFL: returns all transactions, including auction, free agents, IR, TS, waivers, and trades.
- `sleeper_conn`: Sleeper: returns all transactions, including free agents, waivers, and trades.

**Examples**

```r
## Not run:
# Marked as don't run because this endpoint requires private authentication

conn <- espn_connect(
  season = 2020,
  league_id = 1178049,
  swid = Sys.getenv("TAN_SWID"),
  espn_s2 = Sys.getenv("TAN_ESPN_S2")
)
ff_transactions(conn)

## End(Not run)

try({
  conn <- fleaflicker_connect(season = 2020, league_id = 312861)
  ff_transactions(conn)
}) # end try

try({
  dlf_conn <- mfl_connect(2019, league_id = 37920)
  ff_transactions(dlf_conn)
}) # end try

try({
  jml_conn <- ff_connect(platform = "sleeper", league_id = "522458773317046272", season = 2020)
  ff_transactions(jml_conn, week = 1:2)
}) # end try
```
**ff_userleagues**

*Get User Leagues*

**Description**

This function returns a tidy dataframe with one row for every league a user is in. This requires authentication cookies for MFL usage.

**Usage**

```r
ff_userleagues(conn, ...)  
```

## S3 method for class 'espn_conn'

```r
ff_userleagues(conn = NULL, ...)
```

## S3 method for class 'flea_conn'

```r
ff_userleagues(conn = NULL, user_email = NULL, season = NULL, ...)
```

## S3 method for class 'mfl_conn'

```r
ff_userleagues(conn, season = NULL, ...)
```

## S3 method for class 'sleeper_conn'

```r
ff_userleagues(conn = NULL, user_name = NULL, season = NULL, ...)
```

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>conn</td>
<td>a connection object created by <code>ff_connect()</code></td>
</tr>
<tr>
<td>...</td>
<td>arguments that may be passed to other methods</td>
</tr>
<tr>
<td>user_email</td>
<td>the username to look up - defaults to user</td>
</tr>
<tr>
<td>season</td>
<td>the season to look up leagues for</td>
</tr>
<tr>
<td>user_name</td>
<td>the username to look up - defaults to user</td>
</tr>
</tbody>
</table>

**Value**

A tidy dataframe with one row for every league a user is in.

**Methods (by class)**

- `espn_conn`: ESPN: does not support a lookup of user leagues by email or user ID at this time.
- `flea_conn`: flea: returns a listing of leagues for a given user_email
- `mfl_conn`: MFL: With username/password, it will return a list of user leagues.
- `sleeper_conn`: Sleeper: returns a listing of leagues for a given user_id or user_name
See Also

fleaflicker_userleagues() to call this function for flea leagues without first creating a connection object.
sleeper_userleagues() to call this function for Sleeper leagues without first creating a connection object.

Description

This function creates a connection object which stores parameters and a user ID if available.

Usage

fleaflicker_connect(
  season = NULL,
  league_id = NULL,
  user_email = NULL,
  user_agent = NULL,
  rate_limit = TRUE,
  rate_limit_number = NULL,
  rate_limit_seconds = NULL,
  ...
)

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>season</td>
<td>Season to access on Fleaflicker - if missing, will guess based on system date</td>
</tr>
<tr>
<td></td>
<td>(current year if March or later, otherwise previous year)</td>
</tr>
<tr>
<td>league_id</td>
<td>League ID</td>
</tr>
<tr>
<td>user_email</td>
<td>Optional - attempts to get user's user ID by email</td>
</tr>
<tr>
<td>user_agent</td>
<td>User agent to self-identify (optional)</td>
</tr>
<tr>
<td>rate_limit</td>
<td>TRUE by default - turn off rate limiting with FALSE</td>
</tr>
<tr>
<td>rate_limit_number</td>
<td>number of calls per rate_limit_seconds, suggested is under 1000 calls per 60</td>
</tr>
<tr>
<td>rate_limit_seconds</td>
<td>seconds</td>
</tr>
<tr>
<td>...</td>
<td>other arguments (for other methods, for R compat)</td>
</tr>
</tbody>
</table>

Value

a list that stores Fleaflicker connection objects
fleaflicker_getendpoint

*GET any Fleaflicker endpoint*

**Description**

The endpoint names and HTTP parameters (i.e. argument names) are CASE SENSITIVE and should be passed in exactly as displayed on the Fleaflicker API reference page.

**Usage**

```r
define(fleaflicker_getendpoint(endpoint, ...)
```

**Arguments**

- `endpoint` a string defining which endpoint to return from the API
- `...` Arguments which will be passed as "argumentname = argument" in an HTTP query parameter

**Details**

Check out the vignette for more details and example usage.

**Value**

A list object containing the query, response, and parsed content.

**See Also**

- [https://www.fleaflicker.com/api-docs/index.html](https://www.fleaflicker.com/api-docs/index.html)
- vignette("fleaflicker_getendpoint")

---

fleaflicker_players  

*Fleashlicker players library*

**Description**

A cached table of Fleashlicker NFL players. Will store in memory for each session! (via memoise in `xxx.R`)

**Usage**

```r
define(fleaflicker_players(conn, page_limit = NULL)
```
fleaflicker_userleagues

Arguments

conn: a conn object created by `ff_connect()`
page_limit: A number limiting the number of players to return, or NULL (default) returns all

Value

A dataframe containing all ~7000+ players in the Fleaflicker database

Examples

```r
try({
  # try only shown here because sometimes CRAN checks are weird
  conn <- fleaflicker_connect(2020, 312861)
  player_list <- fleaflicker_players(conn, page_limit = 2)
})
```

fleaflicker_userleagues

Fleaflicker - Get User Leagues

Description

This function returns the leagues that a specific user is in. This variant can be used without first creating a connection object.

Usage

```r
fleaflicker_userleagues(user_email, season = NULL)
```

Arguments

user_email: the username to look up
season: the season to return leagues from - defaults to current year based on heuristics

Value

A dataframe of leagues for the specified user

See Also

`ff_userleagues()`
mfl_connect  
Connect to MFL League

Description
This function creates a connection object which stores parameters and gets a login-cookie if available.

Usage
mfl_connect(
  season = NULL,
  league_id = NULL,
  APIKEY = NULL,
  user_name = NULL,
  password = NULL,
  user_agent = NULL,
  rate_limit = TRUE,
  rate_limit_number = NULL,
  rate_limit_seconds = NULL,
  ...
)

Arguments
season  Season to access on MFL - if missing, will guess based on system date (current year if March or later, otherwise previous year)
league_id  league_id Numeric ID parameter for each league, typically found in the URL
APIKEY  APIKEY - optional - allows access to private leagues. Key is unique for each league and accessible from Developer’s API page (currently assuming one league at a time)
user_name  MFL user_name - optional - when supplied in conjunction with a password, will attempt to retrieve authentication token
password  MFL password - optional - when supplied in conjunction with user_name, will attempt to retrieve authentication token
user_agent  A string representing the user agent to be used to identify calls - may find improved rate_limits if verified token
rate_limit  TRUE by default, pass FALSE to turn off rate limiting
rate_limit_number  number of calls per rate_limit_seconds, suggested is 60 calls per 60 seconds
rate_limit_seconds  number of seconds as denominator for rate_limit
...  silently swallows up unused arguments
mfl_getendpoint

Value

a connection object to be used with ff_* functions

Examples

mfl_connect(season = 2020, league_id = 54040)
mfl_connect(season = 2019, league_id = 54040, rate_limit = FALSE)

mfl_getendpoint

GET any MFL endpoint

Description

Create a GET request to any MFL export endpoint.

Usage

mfl_getendpoint(conn, endpoint, ...)

Arguments

conn the list object created by mfl_connect()
endpoint a string defining which endpoint to return from the API
... Arguments which will be passed as "argumentname = argument" in an HTTP query parameter

Details

This function will read the connection object and automatically pass in the rate-limiting, league ID (L), authentication cookie, and/or API key (APIKEY) if configured in the connection object.

The endpoint names and HTTP parameters (i.e. argument names) are CASE SENSITIVE and should be passed in exactly as displayed on the MFL API reference page.

Check out the vignette for more details and example usage.

Value

A list object containing the query, response, and parsed content.

See Also

https://api.myfantasyleague.com/2020/api_info?STATE=details
vignette("mfl_getendpoint")
mfl_players  

**MFL players library**

**Description**
A cached table of MFL players. Will store in memory for each session! (via memoise in zzz.R)

**Usage**
mfl_players(conn = NULL)

**Arguments**
- **conn** optionally, pass in a conn object generated by ff_connect to receive league-specific custom players

**Value**
a dataframe containing all ~2000+ players in the MFL database

**Examples**

```r
try({ # try only shown here because sometimes CRAN checks are weird
  player_list <- mfl_players()
  dplyr::sample_n(player_list, 5)
}) # end try
```

---

nflfastr_rosters  

**Import nflfastr roster data**

**Description**
Fetches a copy of roster data from nflfastr's data repository. The same input/output as nflfastr's fast_scraper_roster function.

**Usage**
nflfastr_rosters(seasons)

**Arguments**
- **seasons** A numeric vector of seasons, earliest of which is 1999
Details

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

Value

Data frame where each individual row represents a player in the roster of the given team and season

See Also


Examples

```r
try( # try only shown here because sometimes CRAN checks are weird
   nflfastr_rosters(seasons = 2019:2020)
)
```

---

nflfastr_stat_mapping  
Mappings for nflfastr to fantasy platform scoring

Description

A small helper dataframe for connecting nflfastr to specific fantasy platform rules.

Usage

nflfastr_stat_mapping

Format

A data frame with ~85 rows and 3 variables:

- `nflfastr_event` the column name of the statistic in the nflfastr_weekly dataset
- `platform` specific platform that this mapping applies to
- `ff_event` name of the statistic for that platform
nflfastr_weekly

*Import latest nflfastr weekly stats*

**Description**

Fetches a copy of the latest week-level stats from nflfastr's data repository. The same output as nflfastr's load_player_stats() function.

**Usage**

```r
nflfastr_weekly(type = c("offense", "defense", "all"))
```

**Arguments**

- `type` One of "offense", "defense", or "all" - currently, only "offense" is available.

**Details**

The goal of this data is to replicate the NFL's official weekly stats, which can diverge a bit from what fantasy data feeds display.

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

**Value**

Weekly stats for all passers, rushers and receivers in the nflfastR play-by-play data from the 1999 season to the most recent season.

**See Also**


**Examples**

```r
try( # try only shown here because sometimes CRAN checks are weird
    nflfastr_weekly()
)
```
sleeper_connect  Connect to Sleeper League

Description

This function creates a connection object which stores parameters and a user ID if available.

Usage

sleeper_connect(
  season = NULL,
  league_id = NULL,
  user_name = NULL,
  user_agent = NULL,
  rate_limit = TRUE,
  rate_limit_number = NULL,
  rate_limit_seconds = NULL,
  ...
)

Arguments

season  Season to access on Sleeper - if missing, will guess based on system date (current year if March or later, otherwise previous year)
league_id  League ID (currently assuming one league at a time)
user_name  Sleeper user_name - optional - attempts to get user's user ID
user_agent  User agent to self-identify (optional)
rate_limit  TRUE by default - turn off rate limiting with FALSE
rate_limit_number  number of calls per rate_limit_seconds, suggested is under 1000 calls per 60 seconds
rate_limit_seconds  number of seconds as denominator for rate_limit
...
other arguments (for other methods)

Value

a list that stores Sleeper connection objects
sleeper_getendpoint  

**Description**

The endpoint names and HTTP parameters (i.e. argument names) are CASE SENSITIVE and should be passed in exactly as displayed on the Sleeper API reference page.

**Usage**

```r
sleeper_getendpoint(endpoint, ...)
```

**Arguments**

- `endpoint` a string defining which endpoint to return from the API
- `...` Arguments which will be passed as "argumentname = argument" in an HTTP query parameter

**Details**

Check out the vignette for more details and example usage.

**Value**

A list object containing the query, response, and parsed content.

**See Also**

- [https://docs.sleeper.app](https://docs.sleeper.app)
- `vignette("sleeper_getendpoint")`

---

sleeper_players  

**Description**

A cached table of Sleeper NFL players. Will store in memory for each session! (via memoise in `zzz.R`)

**Usage**

```r
sleeper_players()
```

**Value**

A dataframe containing all ~7000+ players in the Sleeper database
Examples

```
try({
    x <- sleeper_players()
    dplyr::sample_n(x, 5)
})
```

Description

This function returns the leagues that a specific user is in. This variant can be used without first creating a connection object.

Usage

`sleeper_userleagues(user_name, season = NULL)`

Arguments

- `user_name`: the username to look up
- `season`: the season to return leagues from - defaults to current year based on heuristics

Value

a dataframe of leagues for the specified user

See Also

- `ff_userleagues()`

Pipe operator

```
%>%
```

Description

See `magrittr::%>%` for details.
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