

Package: usfootballR (via r-universe)

October 12, 2026

Title Access MLS and NWSL Play-by-Play Data

Version 0.0.1

Description A utility for working with American soccer data. A
scraping and aggregating interface for ESPN's
<<https://www.espn.com>> MLS and NWSL statistics.

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LazyData true

URL <https://usfootballR.sportsdataverse.org/>,
<https://github.com/sportsdataverse/usfootballR>

BugReports <https://github.com/sportsdataverse/usfootballR/issues>

Encoding UTF-8

Depends R (>= 4.0.0)

Imports data.table (>= 1.14.0), dplyr, furrr, future, glue, janitor,
jsonlite, magrittr, progressr (>= 0.6.0), Rcpp (>= 1.0.7),
RcppParallel (>= 5.1.4), rlang (>= 0.4.0), rvest (>= 1.0.0),
stringr (>= 1.3.0), tidyr (>= 1.0.0), usethis (>= 1.6.0)

Suggests crayon (>= 1.3.4), curl, DBI, ggplot2, ggrepel, httr (>= 0.5),
purrr (>= 0.3.0), rmarkdown, RSQLite, stats, stringi,
testthat, tibble (>= 3.0), xml2 (>= 1.3)

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cmake git make libgit2-dev libicu-dev libuv1-dev libxml2-dev libssl-dev libx11-dev

Repository <https://sportsdataverse.r-universe.dev>

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csv_from_url	Load .csv / .csv.gz file from a remote connection
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Description

This is a thin wrapper on data.table::fread

Usage

csv_from_url(...)

Arguments

... passed to data.table::fread

espn_mls_game_all	<i>Get ESPN's MLS game data (play-by-play, team)</i>
-------------------	--

Description

Get ESPN's MLS game data (play-by-play, team)

Usage

```
espn_mls_game_all(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

A named list of dataframes: Plays, Team

Author(s)

Saiem Gilani

Examples

```
try(espn_mls_game_all(game_id = 598135))
```

espn_mls_pbp	<i>Get ESPN's MLS play by play data</i>
--------------	---

Description

Get ESPN's MLS play by play data

Usage

```
espn_mls_pbp(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

Returns a play-by-play data frame

Author(s)

Saiem Gilani

Examples

```
try(espn_mls_pbp(game_id = 598135))
```

espn_mls_scoreboard	<i>Get MLS schedule for a specific year/date from ESPN's API</i>
---------------------	--

Description

Get MLS schedule for a specific year/date from ESPN's API

Usage

```
espn_mls_scoreboard(season)
```

Arguments

season	Either numeric or character
--------	-----------------------------

Value

Returns a tibble

Author(s)

Saiem Gilani.

Examples

```
# Get schedule from date 2020-08-29  
  
try(espn_mls_scoreboard (season = "20200829"))
```

espn_mls_standings	<i>Get ESPN MLS Standings</i>
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Description

Get ESPN MLS Standings

Usage

```
espn_mls_standings(year)
```

Arguments

year	Either numeric or character (YYYY)
------	------------------------------------

Value

Returns a tibble

Examples

```
try(espn_mls_standings(year = 2021))
```

espn_mls_team_box	<i>Get ESPN's MLS team box data</i>
-------------------	-------------------------------------

Description

Get ESPN's MLS team box data

Usage

```
espn_mls_team_box(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

Returns a team boxscore data frame

Author(s)

Saiem Gilani

Examples

```
try(espn_mls_team_box(game_id = 598135))
```

espn_mls_teams	<i>Get ESPN's MLS team names and ids</i>
----------------	--

Description

Get ESPN's MLS team names and ids

Usage

```
espn_mls_teams()
```

Value

Returns a tibble

Author(s)

Saiem Gilani

Examples

```
try(espn_mls_teams())
```

espn_nwsl_game_all	<i>Get ESPN's NWSL game data (play-by-play, team)</i>
--------------------	---

Description

Get ESPN's NWSL game data (play-by-play, team)

Usage

```
espn_nwsl_game_all(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

A named list of dataframes: Plays, Team

Author(s)

Saiem Gilani

Examples

```
try(espn_nwsl_game_all(game_id = 601833))
```

espn_nwsl_pbp*Get ESPN's NWSL play by play data*

Description

Get ESPN's NWSL play by play data

Usage

```
espn_nwsl_pbp(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

Returns a play-by-play data frame

Author(s)

Saiem Gilani

Examples

```
try(espn_nwsl_pbp(game_id = 601833))
```

`espn_nwsl_scoreboard` *Get NWSL schedule for a specific year/date from ESPN's API*

Description

Get NWSL schedule for a specific year/date from ESPN's API

Usage

```
espn_nwsl_scoreboard(season)
```

Arguments

`season` Either numeric or character

Value

Returns a tibble

Author(s)

Saiem Gilani.

Examples

```
# Get schedule from date 2020-08-29  
  
try(espn_nwsl_scoreboard (season = "20200829"))
```

`espn_nwsl_standings` *Get ESPN NWSL Standings*

Description

Get ESPN NWSL Standings

Usage

```
espn_nwsl_standings(year)
```

Arguments

`year` Either numeric or character (YYYY)

Value

Returns a tibble

Author(s)

Geoff Hutchinson

Examples

```
try(espn_nwsl_standings(year = 2021))
```

espn_nwsl_team_box	<i>Get ESPN's NWSL team box data</i>
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Description

Get ESPN's NWSL team box data

Usage

```
espn_nwsl_team_box(game_id)
```

Arguments

game_id	Game ID
---------	---------

Value

Returns a team boxscore data frame

Author(s)

Saiem Gilani

Examples

```
try(espn_nwsl_team_box(game_id = 601833))
```

espn_nwsl_teams	<i>Get ESPN's NWSL team names and ids</i>
-----------------	---

Description

Get ESPN's NWSL team names and ids

Usage

```
espn_nwsl_teams()
```

Value

Returns a tibble

Author(s)

Saiem Gilani

Examples

```
try(espn_nwsl_teams())
```

load_mls_pbp	Load usfootballR MLS play-by-play
--------------	--

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_mls_pbp(
  seasons = most_recent_mls_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given MLS seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_mls_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the play by play data table within the database

Value

A dataframe

Examples

```
try(load_mls_pbp(2021))
```

load_mls_player_box	Load usfootballR MLS player box scores
---------------------	---

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_mls_player_box(
  seasons = most_recent_mls_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given MLS seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_mls_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the player box data table within the database

Value

Returns a tibble

Examples

```
try(load_mls_player_box(2021))
```

load_mls_schedule	Load usfootballR MLS schedules
-------------------	---------------------------------------

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_mls_schedule(
  seasons = most_recent_mls_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given MLS seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_mls_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the schedule data table within the database

Value

Returns a tibble

Examples

```
try(load_mls_schedule(2021))
```

load_mls_team_box	Load usfootballR MLS team box scores
-------------------	---

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_mls_team_box(
  seasons = most_recent_mls_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given MLS seasons. (Min: 2003)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_mls_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the team box data table within the database

Value

Returns a tibble

Examples

```
try(load_mls_team_box(2021))
```

load_nwsl_pbp

Load usfootballR NWSL play-by-play

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_nwsl_pbp(
  seasons = most_recent_nwsl_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given NWSL seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by update_nwsl_db()).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the play by play data table within the database

Value

A dataframe

Examples

```
try(load_nwsl_pbp(2021))
```

load_nwsl_player_box	Load usfootballR NWSL player box scores
----------------------	--

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_nwsl_player_box(
  seasons = most_recent_nwsl_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given NWSL seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by update_nwsl_db()).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the player box data table within the database

Value

Returns a tibble

Examples

```
try(load_nwsl_player_box(2021))
```

load_nwsl_schedule	Load usfootballR NWSL schedules
--------------------	--

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_nwsl_schedule(  
  seasons = most_recent_nwsl_season(),  
  ...,  
  dbConnection = NULL,  
  tablename = NULL  
)
```

Arguments

seasons	A vector of 4-digit years associated with given NWSL seasons. (Min: 2002)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_nwsl_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the schedule data table within the database

Value

Returns a tibble

Examples

```
try(load_nwsl_schedule(2021))
```

load_nwsl_team_box	Load usfootballR NWSL team box scores
--------------------	--

Description

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

Usage

```
load_nwsl_team_box(
  seasons = most_recent_nwsl_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

Arguments

seasons	A vector of 4-digit years associated with given NWSL seasons. (Min: 2003)
...	Additional arguments passed to an underlying function that writes the season data into a database (used by <code>update_nwsl_db()</code>).
dbConnection	A DBIConnection object, as returned by DBI::dbConnect()
tablename	The name of the team box data table within the database

Value

Returns a tibble

Examples

```
try(load_nwsl_team_box(2021))
```

progressively	<i>Progressively</i>
---------------	----------------------

Description

This function helps add progress-reporting to any function - given function `f()` and progressor `p()`, it will return a new function that calls `f()` and then (on-exiting) will call `p()` after every iteration.

Usage

```
progressively(f, p = NULL)
```

Arguments

f a function to add progressr functionality to.
 p a progressor function as created by `progressr::progressor()`

Details

This is inspired by purrr's `safely`, `quietly`, and `possibly` function decorators.

Value

a function that does the same as `f` but it calls `p()` after iteration.

rds_from_url	Load .rds file from a remote connection
--------------	--

Description

Load .rds file from a remote connection

Usage

```
rds_from_url(url)
```

Arguments

url a character url

Value

a dataframe as created by [readRDS\(\)](#)

update_mls_db	Update or create a usfootballR play-by-play database
---------------	---

Description

`update_mls_db()` updates or creates a database with `usfootballR` play by play data of all completed and available games since 2002.

Usage

```
update_mls_db(  
  dbdir = ".",  
  dbname = "usfootballR_db",  
  tblname = "usfootballR_mls_pbp",  
  force_rebuild = FALSE,  
  db_connection = NULL  
)
```

Arguments

dbdir	Directory in which the database is or shall be located
dbname	File name of an existing or desired SQLite database within dbdir
tblname	The name of the play by play data table within the database
force_rebuild	Hybrid parameter (logical or numeric) to rebuild parts of or the complete play by play data table within the database (please see details for further information)
db_connection	A DBIConnection object, as returned by <code>DBI::dbConnect()</code> (please see details for further information)

Details

This function creates and updates a data table with the name `tblname` within a SQLite database (other drivers via `db_connection`) located in `dbdir` and named `dbname`. The data table combines all play by play data for every available game back to the 2002 season and adds the most recent completed games as soon as they are available for `usfootballR`.

The argument `force_rebuild` is of hybrid type. It can rebuild the play by play data table either for the whole `usfootballR` era (with `force_rebuild = TRUE`) or just for specified seasons (e.g. `force_rebuild = c(2019, 2020)`). Please note the following behavior:

- `force_rebuild = TRUE`: The data table with the name `tblname` will be removed completely and rebuilt from scratch. This is helpful when new columns are added during the Off-Season.
- `force_rebuild = c(2019, 2020)`: The data table with the name `tblname` will be preserved and only rows from the 2019 and 2020 seasons will be deleted and re-added. This is intended to be used for ongoing seasons because ESPN's data provider can make changes to the underlying data during the week.

The parameter `db_connection` is intended for advanced users who want to use other DBI drivers, such as `MariaDB`, `Postgres` or `odbc`. Please note that the arguments `dbdir` and `dbname` are dropped in case a `db_connection` is provided but the argument `tblname` will still be used to write the data table into the database.

Value

Logical TRUE/FALSE

update_nwsl_db	Update or create a usfootballR play-by-play database
----------------	--

Description

`update_nwsl_db()` updates or creates a database with `usfootballR` play by play data of all completed and available games since 2002.

Usage

```
update_nwsl_db(
  dbdir = ".",
  dbname = "usfootballR_db",
  tblname = "usfootballR_nwsl_pbp",
  force_rebuild = FALSE,
  db_connection = NULL
)
```

Arguments

dbdir	Directory in which the database is or shall be located
dbname	File name of an existing or desired SQLite database within dbdir
tblname	The name of the play by play data table within the database
force_rebuild	Hybrid parameter (logical or numeric) to rebuild parts of or the complete play by play data table within the database (please see details for further information)
db_connection	A DBIConnection object, as returned by <code>DBI::dbConnect()</code> (please see details for further information)

Details

This function creates and updates a data table with the name `tblname` within a SQLite database (other drivers via `db_connection`) located in `dbdir` and named `dbname`. The data table combines all play by play data for every available game back to the 2002 season and adds the most recent completed games as soon as they are available for usfootballR.

The argument `force_rebuild` is of hybrid type. It can rebuild the play by play data table either for the whole usfootballR era (with `force_rebuild = TRUE`) or just for specified seasons (e.g. `force_rebuild = c(2019, 2020)`). Please note the following behavior:

- `force_rebuild = TRUE`: The data table with the name `tblname` will be removed completely and rebuilt from scratch. This is helpful when new columns are added during the Off-Season.
- `force_rebuild = c(2019, 2020)`: The data table with the name `tblname` will be preserved and only rows from the 2019 and 2020 seasons will be deleted and re-added. This is intended to be used for ongoing seasons because ESPN's data provider can make changes to the underlying data during the week.

The parameter `db_connection` is intended for advanced users who want to use other DBI drivers, such as MariaDB, Postgres or odbc. Please note that the arguments `dbdir` and `dbname` are dropped in case a `db_connection` is provided but the argument `tblname` will still be used to write the data table into the database.

Value

Logical TRUE/FALSE

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