

Package: defenestrate (via r-universe)

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Title Helpers for Working with Microsoft's Online Services
Programmatically

Version 0.1.0

Description Some functions to simplify the process of working with
files on Microsoft's online teamworking products (OneDrive,
Teams). Built largely around the 'Microsoft365R' package.

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Imports AzureAuth, curl, Microsoft365R, readODS, readr, readxl

Repository <https://matt-dray.r-universe.dev>

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Contents

.check_auth	2
.check_internet	2
.extract_file_type	3
.read_file_type	3
list_onedrive_files	4
list_teams_channels	5
list_teams_teams	5
read_channel_table	6
read_onedrive_table	7

Index	9
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<code>.check_auth</code>	<i>Check for a Specified Token</i>
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Description

Check for a Specified Token

Usage

```
.check_auth(scope_group = c("teams", "business_onedrive"))
```

Arguments

<code>scope_group</code>	Character. The name for a set of scopes that allow access to Microsoft services. See details.
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Details

Each Microsoft product requires a token that covers particular scopes of interaction. The names of these, as used in the `scope_group` argument, are analogous to the associated functions in 'Microsoft365R': "team" for using Teams, the token for which is generated when you use [Microsoft365R::list_teams](#); "business_onedrive" for using OneDrive, the token for which is generated when you use [Microsoft365R::get_business_onedrive](#).

Value

Nothing if the specified token is found, otherwise an error.

<code>.check_internet</code>	<i>Check for Internet</i>
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Description

Check for Internet

Usage

```
.check_internet()
```

Value

Nothing if there's an internet connection, otherwise a warning.

.extract_file_type *Identify File Type and Check that It's Valid*

Description

Identify File Type and Check that It's Valid

Usage

```
.extract_file_type(filepath)
```

Arguments

filepath Character. The path to a file that contains tabular data to be read in.

Value

A character string representing the filetype.

.read_file_type *Choose a Function to Read a Given File Type and Read It*

Description

Choose a Function to Read a Given File Type and Read It

Usage

```
.read_file_type(file_type, temp_file, ...)
```

Arguments

file_type Character. The file extension of the file being read.
temp_file Character. A filepath to a temporary file where the data will be written.
... Additional arguments to pass to the function that will be used to read in the data, which depends on the type of file being read.

Value

A data.frame/tibble if the file exists and can be read.

list_onedrive_files *List Available Files in a Business OneDrive Directory*

Description

A shortcut for listing files in a directory in a business OneDrive that you have access to and have been authorised against (see details) without needing to interact with the R6 object returned by [Microsoft365R::get_business_onedrive](#).

Usage

```
list_onedrive_files(filepath = NULL)
```

Arguments

filepath Character. The path to a OneDrive directory starting from the root of your business OneDrive directory. Defaults to NULL, which will return the directories and files available to you from the root.

Details

You must have completed the authorisation process for the channel that you want to read from. To do this, run `Microsoft365R::get_business_onedrive()`, which will open the browser for automatic authorisation. A token authorising you for the required scopes will be stored on your computer.

Note that you'll see the message 'Loading Microsoft Graph login for default tenant' when tokens are being checked. You may also see 'Access token has expired or is no longer valid; refreshing' when your token is stale. Use [base::suppressMessages](#) to hide these messages.

Value

Character. The names of directories (suffixed with a forward slash) and files (suffixed with a file extension) available from the provided filepath.

Examples

```
## Not run: list_onedrive_files("Personal")
```

list_teams_channels *List Available Channels in a Teams Team*

Description

A shortcut for listing channels in a Teams team that you have access to and have been authorised against (see details) without needing to interact with the R6 object returned by [Microsoft365R::get_team](#).

Usage

```
list_teams_channels(team)
```

Arguments

team Character. The name of a Teams team.

Details

You must have completed the authorisation process for Teams. To do this, run `Microsoft365R::list_teams()`, which will open the browser for automatic authorisation. A token authorising you for the required scopes will be stored on your computer.

Note that you'll see the message 'Loading Microsoft Graph login for default tenant' when tokens are being checked. You may also see 'Access token has expired or is no longer valid; refreshing' when your token is stale. Use [base::suppressMessages](#) to hide these messages.

Value

Character. Names of Teams channels available to you.

Examples

```
## Not run: list_teams_channels("Statistics Production Division")
```

list_teams_teams *List Available Teams*

Description

A shortcut for listing Teams teams that you have access to and have been authorised against (see details) without needing to interact with the R6 object returned by [Microsoft365R::get_team](#).

Usage

```
list_teams_teams()
```

Details

You must have completed the authorisation process for Teams. To do this, run `Microsoft365R::list_teams()`, which will open the browser for automatic authorisation. A token authorising you for the required scopes will be stored on your computer.

Note that you'll see the message 'Loading Microsoft Graph login for default tenant' when tokens are being checked. You may also see 'Access token has expired or is no longer valid; refreshing' when your token is stale. Use `base::suppressMessages` to hide these messages.

Value

Character. Names of Teams teams available to you.

Examples

```
## Not run: list_teams_teams()
```

read_channel_table	<i>Read Tabular Data from a Teams Channel</i>
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Description

Read in data from a file that's available from a channel in a Microsoft Teams team that you have access to and have been authorised against (see details).

Usage

```
read_channel_table(team, channel, filepath, ...)
```

Arguments

team	Character. The name of a Teams team.
channel	Character. The name of a channel in the Teams team provided to the 'team' argument.
filepath	Character. The path to a file that contains tabular data to be read in.
...	Additional arguments to pass to the function that will be used to read in the data, which depends on the type of file being read. See details.

Details

You need to have a token on your computer that authorises you to use the scopes required to access data on Teams. The easiest way to do this is to run a function like `Microsoft365R::list_teams`, which will open a browser window and authorise you automatically. Then you can use 'defenestrate' functions. You only need to do this authorisation once.

Note that you'll see the message 'Loading Microsoft Graph login for default tenant' when tokens are being checked. You may also see 'Access token has expired or is no longer valid; refreshing' when your token is stale. Use `base::suppressMessages` to hide these messages.

The exact function used internally by [read_channel_table](#) to read data depends on the filetype. For Excel files, [readxl::read_excel](#); for ODS files, [readODS::read_ods](#); for CSV and TSV files, [readr::read_csv](#) and [readr::read_tsv](#); for RDS files, [readr::read_rds](#). You can supply extra arguments from these functions to the '...' (dots) argument. For example, if reading an xlsx file, you could use the argument `sheet = 1` to read the first sheet only.

Value

A data.frame/tibble class object.

Examples

```
## Not run: read_channel_table("Team Name", "Channel Name", "file.csv")
```

read_onedrive_table *Read Tabular Data from OneDrive*

Description

Read in data from a file that's available from your business's OneDrive, which you have access to and have been authorised against (see details).

Usage

```
read_onedrive_table(filepath, ...)
```

Arguments

filepath	Character. The path to a file that contains tabular data to be read in, starting from the root of your Business OneDrive folder, i.e. C:/Users/your.name/OneDrive - UK Health Security Agency/ (see the files and folders available from this location by running list_onedrive_files with empty arguments).
...	Additional arguments to pass to the function that will be used to read in the data, which depends on the type of file being read. See details.

Details

You need to have a token on your computer that authorises you to use the scopes required to access data on Teams. The easiest way to do this is to run a function like [Microsoft365R::get_business_onedrive](#), which will open a browser window and authorise you automatically. Then you can use defenestrate functions. You only need to do this authorisation once.

Note that you'll see the message 'Loading Microsoft Graph login for default tenant' when tokens are being checked. You may also see 'Access token has expired or is no longer valid; refreshing' when your token is stale. Use [base::suppressMessages](#) to hide these messages.

The exact function used internally by [read_onedrive_table](#) to read data depends on the filetype. For Excel files, [readxl::read_excel](#); for ODS files, [readODS::read_ods](#); for CSV and TSV files, [readr::read_csv](#) and [readr::read_tsv](#); for RDS files, [readr::read_rds](#). You can supply extra arguments from these functions to the '...' (dots) argument. For example, if reading an xlsx file, you could use the argument `sheet = 1` to read the first sheet only.

Value

A data.frame/tibble class object.

Examples

```
## Not run: read_onedrive_table("Personal/file.csv")
```


Index

.check_auth, 2
.check_internet, 2
.extract_file_type, 3
.read_file_type, 3

base::suppressMessages, 4-7

list_onedrive_files, 4, 7
list_teams_channels, 5
list_teams_teams, 5

Microsoft365R::get_business_onedrive,
2, 4, 7
Microsoft365R::get_team, 5
Microsoft365R::list_teams, 2, 6

read_channel_table, 6, 7
read_onedrive_table, 7, 7
readODS::read_ods, 7
readr::read_csv, 7
readr::read_rds, 7
readr::read_tsv, 7
readxl::read_excel, 7