

Package ‘nasadata’

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Type Package

Title Interface to various NASA API's

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Description Provides functions to access NASA's Earth Imagery and Assets API and the Earth Observatory Natural Event Tracker (EONET) webservice.

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LazyData TRUE

RoxygenNote 5.0.1

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earth_asset	<i>Trace a satellite route</i>
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Description

Calls NASA's Earth Imagery Assets API and returns data.frame with information on time and location between two dates to "trace" a satellites path.

Usage

```
earth_asset(key, lon, lat, start_date, end_date = Sys.Date())
```

Arguments

key	Key for API authentication.
lon	Longitud of coordinate position.
lat	Latitud of coordinate position.
start_date	Start date to search for image. In YYYY-MM-DD format.
end_date	End date to search for image. In YYYY-MM-DD format. Defaults to current system date.

earth_event	<i>Calls EONET webservice</i>
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Description

Calls NASA's Earth Observatory Natural Event Tracker (EONET) webservice and returns a data.frame with individual event or events.

Usage

```
earth_event(status = "all", sources = "all", category_id = "all",
            limit = 10, days = 20, LimitType = "limit", TrySimplify = TRUE)
```

Arguments

status	Accepts 1 or 0 (open or closed). Defaults to "all", which includes both.
sources	Accepts character id strings from EONET sources (see eonet_sources)
category_id	bla
limit	vla
days	jks
LimitType	lvo
TrySimplify	lasn

earth_image	<i>Fetches image from Earth Imagery API</i>
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Description

Calls NASA's Earth Imagery API and returns list with identification information and image.

Usage

```
earth_image(key, lon, lat, date, cloud_score = TRUE, plot = FALSE,
            meta_only = FALSE)
```

Arguments

key	Key for API authentication.
lon	Longitud of coordinate position.
lat	Latitud of coordinate position.
date	In YYYY-MM-DD format. The API wil return the image that is closest to this date.
cloud_score	Gives a score of percentage of cloud cover, via algorithm (see official documentation). Defaults to TRUE.
plot	If TRUE will plot the image via generic plot function.

eonet_categories	<i>Calls EONET category webservice</i>
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Description

Calls NASA's Earth Imagery API and returns data.frame with information on time

Usage

```
eonet_categories(limit = 10)
```

eonet_sources	<i>Calls EONET sources webservice</i>
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Description

Calls NASA's Earth Imagery API and returns data.frame with information on time

Usage

```
eonet_sources(limit = 10)
```

plot_earth_image	<i>Plots the image to device</i>
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Description

To avoid S4 Classes and methods, this small wrapper simply plots an image from NASA. If the purpose is to this interactively on one image, set the parameter plot = TRUE in earth_image

Usage

```
plot_earth_image(image_png)
```

Arguments

image_png	image downloaded using earth_image.
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See Also

earth_image

trace_sat	<i>Trace a satellite route</i>
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Description

Calls NASA's Earth Imagery Assets API and returns data.frame with information on time and location between two dates to "trace" a satellites path.

Usage

```
trace_sat(key, lon1, lon2, lat1, lat2, date1, date2, cloud_score = TRUE,  
          plot = FALSE, meta_only = FALSE)
```

Arguments

key	Key for API authentication.
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