Package 'GVS'

December 5, 2024

Title 'Geocoordinate Validation Service'

Version 0.0.1

Description The 'Geocoordinate Validation Service' (GVS) runs checks of coordinates in latitude/longitude format. It returns annotated coordinates with additional flags and metadata that can be used in data cleaning. Additionally, the package has functions related to attribution and metadata information. More information can be found at <https://github.com/ojalaquellueva/gvs/tree/master/api>.

Depends R (>= 3.5.0)

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Encoding UTF-8

RoxygenNote 7.3.2

LazyData true

Imports jsonlite, httr

Suggests knitr, rmarkdown, testthat, devtools, BIEN, vcr (>= 0.6.0)

VignetteBuilder knitr

NeedsCompilation no

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`GVS` *Check the validity of coordinates*

Description

GVS returns information on coordinate validity.

Usage

```
GVS(occurrence_dataframe, ...)
```

Arguments

`occurrence_dataframe`	A properly formatted dataframe, see `gvs_testfile`
`...`	Additional arguments passed to internal functions.

Value

Dataframe containing GVS results.

Examples

```
results <- GVS(occurrence_dataframe = gvs_testfile)
```

`GVS_citations` *Get citation information*

Description

Returns information needed to cite the GVS

Usage

```
GVS_citations(...)
```

Arguments

`...`	Additional arguments passed to internal functions.

Value

Dataframe containing bibtex-formatted citation information

Note

This function provides citation information in bibtex format that can be used with reference manager software (e.g. Paperpile, Zotero). Please do remember to cite both the sources and the GVS, as the GVS couldn't exist without these sources!

Examples

```
{
citation_info <- GVS_citations()
}
```

GVS_collaborators *Get collaborator information*

Description

Returns information on GVS collaborators

Usage

```
GVS_collaborators(...)
```

Arguments

...	Additional arguments passed to internal functions.

Value

Dataframe containing bibtex-formatted citation information

Examples

```
{
collaborator_info <- GVS_collaborators()
}
```

GVS_data_dictionary *Get data dictionary*

Description

Returns the GVS data dictionary

Usage

```
GVS_data_dictionary(...)
```

Arguments

...	Additional arguments passed to internal functions.

Value

Dataframe containing bibtex-formatted citation information

Examples

```
{
data_dictionary <- GVS_data_dictionary()
}
```

GVS_metadata *Get GVS metadata*

Description

Returns metadata on GVS including version and citation information

Usage

```
GVS_metadata(bibtex_file = NULL, ...)
```

Arguments

bibtex_file	Optional output file for writing bibtex citations.
...	Additional arguments passed to internal functions.

Value

List containing: (1) bibtex-formatted citation information, (2) information about GVS data sources, and (3) GVS version information.

Note

This function provides citation information in bibtex format that can be used with reference manager software (e.g., Paperpile, Zotero). Please remember to cite both the sources and the GVS, as the GVS couldn't exist without these sources!

This function is a wrapper that returns the output of the functions GVS_citations, GVS_sources, and GVS_version.

Examples

```
{
metadata <- GVS_metadata()
}
```

`GVS_sources` *Get information on sources used by the GVS*

Description

Return metadata about the current GVS sources

Usage

```
GVS_sources(...)
```

Arguments

`...`	Additional arguments passed to internal functions.

Value

Dataframe containing information about the sources used in the current GVS version.

Examples

```
{
sources <- GVS_sources()
}
```

gvs_testfile *Example GVS data*

Description

A sample dataset showing the proper formatting of GVS inputs.

Usage

```
gvs_testfile
```

Format

A data.frame with 27 observations of 2 variables:

Latitude Latitude, in decimal degrees

Longitude Longitude, in decimal degrees ...

Source

https://biendata.org

GVS_version *Get metadata on current GVS version*

Description

Return metadata about the current GVS version

Usage

```
GVS_version(...)
```

Arguments

...	Additional arguments passed to internal functions.

Value

Dataframe containing current GVS version number, build date, and code version.

Examples

```
{
NSR_version_metadata <- GVS_version()
}
```

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