

# Package ‘GNRS’

April 28, 2020

**Title** Access the 'Geographic Name Resolution Service'

**Version** 0.1.0

**Description** Provides tools for interacting with the 'geographic name resolution service' ('GNRS') API <<https://github.com/ojalaquellueva/gnrs>> and associated functionality. The 'GNRS' is a batch application for resolving & standardizing political division names against standard name in the geonames database <<http://www.geonames.org/>>. The 'GNRS' resolves political division names at three levels: country, state/province and county/parish. Resolution is performed in a series of steps, beginning with direct matching to standard names, followed by direct matching to alternate names in different languages, followed by direct matching to standard codes (such as ISO and FIPS codes). If direct matching fails, the 'GNRS' attempts to match to standard and then alternate names using fuzzy matching, but does not perform fuzzing matching of political division codes. The 'GNRS' works down the political division hierarchy, stopping at the current level if all matches fail. In other words, if a country cannot be matched, the 'GNRS' does not attempt to match state or county.

**Depends** R (>= 3.4.0)

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**Imports** rjson, RCurl, jsonlite

**Suggests** knitr, rmarkdown, testthat, devtools, BIEN

**VignetteBuilder** knitr

**RoxygenNote** 7.1.0

**NeedsCompilation** no

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**Repository** CRAN

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**R topics documented:**

GNRS . . . . .	2
GNRS_super_simple . . . . .	3
GNRS_template . . . . .	4
<b>Index</b>	<b>5</b>

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GNRS	<i>Standardize political division names</i>
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**Description**

GNRS returns standardized political division names (according to [geonames.org](http://geonames.org)).

**Usage**

```
GNRS(political_division_dataframe)
```

**Arguments**

```
political_division_dataframe
  A properly formatted dataframe, see http://bien.nceas.ucsb.edu/bien/tools/gnrs/gnrs-api/
```

**Value**

Dataframe containing GNRS results.

**Examples**

```
{
gnrs_testfile <-
read.csv(system.file("extdata", "gnrs_testfile.csv", package = "GNRS", mustWork = TRUE),
stringsAsFactors = FALSE)

results <- GNRS(political_division_dataframe = gnrs_testfile)

}
```

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GNRS_super_simple	<i>Standardize political division names</i>
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## Description

GNRS\_super\_simple returns standardized political division names (according to geonames.org).

## Usage

```
GNRS_super_simple(  
  country = NULL,  
  state_province = NULL,  
  county_parish = NULL,  
  user_id = NULL  
)
```

## Arguments

country	A single country or a vector of countries. If a vector, length must equal length of species vector.
state_province	A single state/province or a vector of states. If a vector, length must equal length of species vector.
county_parish	A single county/parish or a vector of counties. If a vector, length must equal length of species vector.
user_id	A single user id to be appended to results (optional).

## Value

Dataframe containing GNRS results.

## Examples

```
{  
  
  results <- GNRS_super_simple(country = "United States of America")  
  results <- GNRS_super_simple(  
    country = "United States",  
    state_province = "Arizona",  
    county_parish = "Pima County")  
  
}
```

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GNRS_template	<i>Make a template for a GNRS query</i>
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**Description**

GNRS\_template builds a template that can be populated to submit a GNRS query.

**Usage**

```
GNRS_template(nrow = 1)
```

**Arguments**

nrow                    The number of rows to include in the template

**Value**

Template data.frame that can be populated and then used in GNRS queries.

**Examples**

```
{  
  
  template<-GNRS_template(nrow = 2)  
  template$country<-c("United States", "Mexico")  
  template$state_province<-c("Arizona", "Sinaloa")  
  GNRS(political_division_dataframe = template)  
  
}
```

# Index

GNRS, [2](#)

GNRS\_super\_simple, [3](#)

GNRS\_template, [4](#)