

Package ‘Argentum’

January 20, 2025

Title Access and Import WMS and WFS Data from Argentine Organizations

Version 0.5.1

Description Provides functions to retrieve information from Web Feature Service (WFS) and Web Map Service (WMS) layers from various Argentine organizations and import them into R for further analysis. WFS and WMS are standardized protocols for serving georeferenced map data over the internet. For more information on these services, see <<https://www.ogc.org/standard/wfs/>> and <<https://www.ogc.org/standard/wms/>>.

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Encoding UTF-8

RoxygenNote 7.2.3

Imports httr, xml2, sf, readr

Suggests testthat (>= 3.0.0), mockery

Config/testthat/edition 3

NeedsCompilation no

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Repository CRAN

Date/Publication 2024-09-30 10:30:20 UTC

Contents

argentum_get_capabilities	2
argentum_import_wfs_layer	2
argentum_interactive_import	3
argentum_list_layers	3
argentum_list_organizations	4
argentum_select_organization	5

Index	6
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argentum_get_capabilities
Get WMS or WFS Capabilities

Description

Get WMS or WFS Capabilities

Usage

```
argentum_get_capabilities(url, max_tries = 3, timeout = 30)
```

Arguments

url	The full URL of the WMS or WFS service, including all parameters
max_tries	The maximum number of attempts to connect
timeout	The timeout for each attempt in seconds

Value

An XML document containing the service capabilities

Examples

```
try({  
  capabilities <- argentum_get_capabilities("http://example.com/wfs")  
  print(capabilities)  
})
```

argentum_import_wfs_layer
Import WFS Layer

Description

Import WFS Layer

Usage

```
argentum_import_wfs_layer(wfs_url, layer_name)
```

Arguments

wfs_url	The URL of the WFS service
layer_name	The name of the layer to import

Value

An sf object

Examples

```
tryCatch({
  sf_layer <- argentum_import_wfs_layer("http://example.com/wfs", "example_layer")
  print(sf_layer)
}, error = function(e) {
  message("Error occurred: ", e$message)
})
```

argentum_interactive_import
Import WFS Layer Interactively

Description

Import WFS Layer Interactively

Usage

```
argentum_interactive_import()
```

Value

An sf object

Examples

```
sf_layer <- argentum_interactive_import()
```

argentum_list_layers *List Layers for a Given Organization*

Description

This function retrieves and lists the available layers for a specified organization.

Usage

```
argentum_list_layers(organization)
```

Arguments

organization A character string specifying the name of the organization

Value

A data frame containing layer information with columns 'Name' and 'Title'

Examples

```
# This example uses a mock organization name.
# In a real scenario, use an actual organization name from argentum_list_organizations()
tryCatch({
  orgs <- argentum_list_organizations()
  if(nrow(orgs) > 0) {
    layers <- argentum_list_layers(orgs$Name[1])
    print(layers)
  } else {
    message("No organizations found.")
  }
}, error = function(e) {
  message("Error occurred: ", e$message)
})
```

argentum_list_organizations

List Organizations with WMS and WFS Services

Description

List Organizations with WMS and WFS Services

Usage

```
argentum_list_organizations()
```

Value

A data frame containing organization information including WMS and WFS URLs

argentum_select_organization
Select Organization

Description

Select Organization

Usage

```
argentum_select_organization(search = NULL, interactive_select = interactive())
```

Arguments

search An optional search term to filter organizations
interactive_select Logical; whether to run in interactive mode. Defaults to interactive()

Value

A data frame containing the selected organization's information, or NULL if no selection is made

Examples

```
# List available organizations
orgs <- argentum_list_organizations()
print(orgs)

# Select organization non-interactively
selected_org <- argentum_select_organization(interactive_select = FALSE)
print(selected_org)

if(interactive()){
  # Select an organization interactively
  selected_org <- argentum_select_organization()

  # Select an organization with a search term
  selected_org <- argentum_select_organization("Example")
}
```

Index

argentum_get_capabilities, [2](#)
argentum_import_wfs_layer, [2](#)
argentum_interactive_import, [3](#)
argentum_list_layers, [3](#)
argentum_list_organizations, [4](#)
argentum_select_organization, [5](#)