ListRDF API

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Overview

Purpose

Permits external applications to obtain a list of all Individuals in VIVO that belong to a specified class. For example, a list of all Persons, or a list of all Organizations.

This API complements the Linked Open Data API. The Linked Open Data standard describes a way to get data about any Individual, but it does not provide a way to get a list of Individuals to begin with.

Filtered results

The results of this query is filtered by the same VIVO policies that control Linked Open Data. Individuals may be omitted from the results, if those policies restrict access to those Individuals.

Use Cases

Harvesting data from VIVO

Data in VIVO is available to other applications via Linked Open Data - requests and responses. A list of Individuals from this API may provide a starting point for such applications.

Multi-site search index

If an external application chooses to build a compendium from several VIVO sites, it will need to know what Individuals are present in each site.

Specification

URL

`[vivo]/listrdf`

Examples:

```
http://vivo.cornell.edu/listrdf
```

```
http://localhost:8080/vivo/listrdf
```

HTTP Method

The API supports HTTP GET or POST calls.

Parameters

name	value
`vclass`	the URI of the class to be listed.

Response Codes

Code	Reason
`200 OK`	SPARQL query was successful.
`400 Bad Request`	HTTP request did not include a `vclass` parameter.
`406 Not Acceptable`	The Accept header does not include any available content types.
`500 Internal Server Error`	VIVO could not execute the request; internal code threw an exception.

Content of the response

The response will contain RDF triples. Each triple asserts that an Individual is an instance of the requested class.

Available content types

The request may include an `Accept` header, to specify the preferred content type of the response. If no `Accept` header is provided, the preferred content type is assumed to be `text/plain`.

MIME type in the Accept header	Response format	Format description
`text/plain`	N-Triples	http://www.w3.org/2001/sw/RDFCore/ntriples/
`application/rdf+xml`	RDF/XML	http://www.w3.org/TR/rdf-syntax-grammar/
`text/n3`	N3	http://www.w3.org/TeamSubmission/n3/
`text/turtle`	Turtle	http://www.w3.org/TeamSubmission/turtle/
`application/json`	JSON-LD	http://www.w3.org/TR/json-ld/

Examples

These examples use the UNIX `curl` command to issue queries to the API.

Continents as N-Triples example

This example requests a list of `vivo:Continent` Individuals, in N-triples format.

```
curl -i -d 'vclass=http://vivoweb.org/ontology/core#Continent' -H 'Accept:text/plain' 'http://localhost:8080
/vivo/listrdf'
```

The response looks like this:

```
<http://aims.fao.org/aos/geopolitical.owl#Africa> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#Europe> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#Antarctica> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#northern_America> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#South_America> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#Australia_and_New_Zealand> <http://www.w3.org/1999/02/22-rdf-syntax-
ns#type> <http://vivoweb.org/ontology/core#Continent> .
<http://aims.fao.org/aos/geopolitical.owl#Asia> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://vivoweb.org/ontology/core#Continent> .
```

Faculty Members as JSON-LD example

This example requests a list of `vivo:FacultyMember` Individuals, in JSON.

```
curl -i -d 'vclass=http://vivoweb.org/ontology/core#FacultyMember' -H 'Accept:application/json'
'http://localhost:8080/vivo/listrdf'
```

The response (for a very small VIVO) looks like this:

```
[{"@id":"http://vivo.mydomain.edu/individual/n4295","@type":["http://vivoweb.org/ontology/core#FacultyMember"]},
{"@id":"http://vivo.mydomain.edu/individual/n5056","@type":["http://vivoweb.org/ontology/core#FacultyMember"]},
{"@id":"http://vivo.mydomain.edu/individual/n7630","@type":["http://vivoweb.org/ontology/core#FacultyMember"]},
{"@id":"http://vivoweb.org/ontology/core#FacultyMember"}]
```