

Vitro site admin & editing guide

August, 2015

Overview

- Basic orientation
 - Site Admin menu
 - Front end vs. JSP 'blue screen' editing
- Adding an ontology namespace and prefix
- Setting up classgroups
- Adding classes
 - Creating an individual of that class
- Adding data properties
- Adding object properties
- Adding property groups

Basic orientation

Vitro (and by extension VIVO) has three principal functional modes

- Ontology editing and display configuration, typically limited to a site admin and/or an ontology specialist
- Content addition and editing, initially through Vitro user accounts but optionally also via single sign-on
- Browsing and search functions for non-logged in users

Vitro setup and configuration

Vitro is initially configurable by modifying configuration files prior to startup

- Configuration typically happens at installation, documented at <https://wiki.duraspace.org/x/VK4OB>
- These include the application name, the namespace, the database name, the root user and password, the email service, and several optional additional configurations
- Once Vitro is running, additional changes may then be applied interactively to the application using site admin functions

Site Admin menus

- Data input form (for new entries)
- Ontology editor
 - Ontology list
 - Class management
 - Property management
- Site configuration
- Advanced data tools
- Site maintenance

Data input: classgroups

Note that the input form is disabled until at least one classgroup has been created

Classgroups serve as a grouping mechanism for purposes of the Vitro application, outside the formal ontology

- They help organize the index page
- They provide the most common means of content organization for browsing via menu pages
- Classes not added to class groups are less visible in the user interface -- this becomes one mechanism to hide or at least de-emphasize content

Classgroup display

Class Groups

Display Options

Classes by Class Group

Add New Class

Add New Group

group 1

Display Rank: 1

Classes: [First Test Class](#)

A first test class to illustrate creating classes

Data input

Once at least one classgroup has been created, the data input form is at least partially activated.

However, without classes, content ('individuals') can still not yet be added ...

Ontology Editor menu

Ontology list

- On startup, the only ontology is the “Vitro public constructs” ontology, that supports file upload (primarily images)
- Adding a new ontology really means “Add a new ontology namespace and prefix”
- Try adding

Ontology Editing Form

Creating New Record (* Required Fields)

Ontology name

Namespace URI* (must begin with http:// or https://)

Namespace prefix

Ontology editor: control panel

Ontology Control Panel

The screenshot shows the 'Ontology Control Panel' for the 'Vitro public constructs' ontology. The panel has a header section with the ontology name and namespace, and a 'Prefix' label. Below the header are several buttons: 'All Ontologies', 'Edit Vitro public constructs', 'Add New Ontology', 'Change URI', 'Hierarchy of Classes Defined in This Namespace', 'Object Properties Defined in This Namespace', 'Datatype Properties Defined in This Namespace', and 'Export Ontology Entities Defined in This Namespace to RDF'. The export button is highlighted with a red border. Below the export button are radio buttons for the export format: 'RDF/XML abbreviated' (selected), 'RDF/XML', 'N3', 'N-Triples', and 'Turtle'.

Ontology **Vitro public constructs**

Namespace `http://vitro.mannlib.cornell.edu/ns/vitro/public#`

Prefix

All Ontologies Edit Vitro public constructs Add New Ontology

Hierarchy of Classes Defined in This Namespace

Object Properties Defined in This Namespace

Datatype Properties Defined in This Namespace

Change URI

Export Ontology Entities Defined in This Namespace to RDF

☒ RDF/XML abbreviated ☐ RDF/XML ☐ N3 ☐ N-Triples ☐ Turtle

Provides

- Filtered views of only the classes and properties in its namespace
- Exporting the ontology separately from content
- A tool to correct or change the ontology URI

All Classes

Display Options

All Classes

Add New Class

[File \(Vitro public constructs\)](#)

Ontology: Vitro public constructs

[FileByteArrayStream \(Vitro public constructs\)](#)

Ontology: Vitro public constructs

[Thing](#)

Ontology: <http://www.w3.org/2002/07/owl#>

Class Management

Class hierarchy

- Four options for viewing
 - All classes (alphabetically by class name)
 - Asserted class hierarchy
 - Inferred class hierarchy
 - Classes by class group
- The hierarchy view shows an expandable tree view of the structure
- It may be easier to find a class on the 'All classes' list, especially in a deep hierarchy

Class editing form (basic fields)

Class Editing Form

Creating New Record (* Required Fields)

Class label

by convention use initial capital letters; spaces OK

Class group

for menu pages, search results and the index page

Ontology

Internal name* (RDF local name)

must be valid XML without spaces; by convention use camel case with an initial capital

Short definition to display publicly

Class editing form (advanced fields)

Example for ontology editors

Description for ontology editors

Display level

Update level

Publish level

Display rank when collating property by subclass

Custom entry form

Create New Record

Reset

Cancel

Class control panel (primary)

Class Control Panel

class	First Test Class (test)
class label	First Test Class
class group	group 1
ontology	Test Ontology
RDF local name	FirstTestClass
short definition	A first test class to illustrate creating classes
example	
editor description	
display level	all users, including public
update level	all users who can log in
display rank	-1
custom entry form	(unspecified)
URI	http://myDomain.com/ontology/test#FirstTestClass
publish level	all users, including public

- Lists class labels and settings up here
- Adds a series of button groupings, starting with the most commonly used functions and some important content-related functions

Show All Classes

Edit Class

Add New Class

Show Class Hierarchy

Add New Individual in This Class

Show Hierarchy below This Class

Change URI

Show All Individuals in This Class

Move Instances to Another Class

Show Individuals Asserted To Be in This Class

Class control panel

- These buttons control class hierarchy linkages and support more advanced ontology axioms such as class equivalence, disjointness, and property restrictions
- The “show all ...” buttons are also useful to keep in mind

New Link to Superclass

New Link to Subclass

Add New Subclass of This Class

Assert Class Equivalence

New Disjointness Axiom

Show All Object Properties Applicable to This Class

Define New Domain Property at This Class

Show All Data Properties Applicable to This Class

all values from

Apply Restriction

Restrict: ☒ object property ☐ data property

Property Management menu

- Object property hierarchy
 - Relationships between entities
- Data property hierarchy
 - Attributes of one entity
- Faux property listing
 - Context-dependent labels for properties
- Property groups

Data property editing -- basic

Data Property Editing Form

Creating New Record (* Required Fields)

Public label

test data property

Property group

none

for grouping properties on individual pages

Ontology

Test Ontology

Internal name* (RDF local name)

testDataProperty

must be valid XML without spaces; by convention use camel case with no initial capital

Domain class

First Test Class (test)

Range datatype

untyped (use if language tags desired)

Use "untyped" instead of "string" to allow language tags

- The few data properties that Vitro initially displays are in the Vitro public constructs ontology

Range datatype choices

Range datatype

untyped (use if language tags desired)

untyped (use if language tags desired)
XML literal (allows XHTML markup)
string
integer between -2147483648 and 2147483647 (int)
integer
float
date and time (YYYY-MM-DDThh:mm:ss)
date (YYYY-MM-DD)
time (hh:mm:ss)
year (YYYY)
month (MM)
year and month (YYYY-MM)
URI/URL
boolean (true/false)

Add new entry for: test data property

B I U | | | | | | HTML

Save entry or [Cancel](#)

- Untyped allows language tags
- Use integer, float, boolean, or the various date choices where necessary

Add new entry for: test data property

123456

Save entry or [Cancel](#)

Add new entry for: test data property

true

Save entry or [Cancel](#)

Add new entry for: test data property

Year Month Day

Save entry or [Cancel](#)

Data property editing (advanced fields)

Make this property be:

☐ functional

A "functional" property has at most one value for each individual

Public description for front-end users, as it will appear on editing forms

Example for ontology editors

Description for ontology editors

Display level

all users, including public ▼

Update level

all users who can log in ▼

Publish level

all users, including public ▼

Display tier within property group

Display limit before "more ..." button is displayed

Custom entry form

Create New Record

Reset

Cancel

Object property editing - basic

Property Editing Form

Creating New Record (* Required Fields)

Parent property

none (root property)

Property group

none

for grouping properties on individual pages

Ontology

Test Ontology

Internal name* (RDF local name)

testObjectProperty

must be valid XML without spaces; by convention use camel case with no initial capital

Label for public display

test object property

Inverse property ontology

Test Ontology

Inverse internal name

testInverseProperty

must be a valid XML name without spaces; by convention use camel case with no initial capital

Inverse label

test inverse property

Domain class

First Test Class (test)

Range class

Second Test Class (test)

Object property editing -- options

Make this property be:

☐ transitive ☐ symmetric ☐ functional ☐ inverse functional

Public Description for front-end users, as it will appear on editing forms

Example for ontology editors

Description for ontology editors

Display level

all users, including public

Update level

all users who can log in

Publish level

all users, including public

Object property editing - more options

Display tier for this property

lower numbers display first

Display tier for inverse property

lower numbers display first

When displaying related individuals from different classes,

☐ collate by subclass

Display limit for this property

Display limit for inverse property

The limit before the "more ..." button is displayed.

Sort direction for related individuals, alphabetically by their name (rdfs:label)

blank for ascending, "desc" for descending

Note: will be ignored if a custom list view has been configured for this property

Select related individuals from existing choices?

☒ provide selection

Allow creating new related individuals?

☐ offer create option

Custom entry form

Create New Record

Reset

Cancel

Populated properties

test data property

[test:testDataProperty](#) (data property); order in group: -1; display level: all users, including public; update level: all users who can log in; publish level: all users, including public

This is an *untyped literal entry* and can be of arbitrary length and include formatting including **Bold Text**.

Entries may include

- lists
- list elements that include formatting

multiple paragraphs



test object property

[test:testObjectProperty](#) (object property); order in group: -1; display level: all users, including public; update level: all users who can log in; publish level: all users, including public

[second test individual](#)  

test inverse property

[Test individual](#)  

Faux property listing

- Faux properties are a relatively new addition to Vitro and VIVO to help constrain ontology complexity
- A faux property allows specification of a different label for a property when used with domain and/or range entities of specific types

Property groups

- Property groups are a grouping mechanism similar to class groups
- Adding groups results in tabbed areas of property display across the page
- They work with object properties and data properties alike
 - It's often desirable to be able to interleave data and object properties
- Display ordering applies within property groups

Site Configuration

- Manage profile editing -- proxy editors
- Page management -- setting up menu tabs and/or special purpose pages
- Menu ordering -- changing the order of menu tabs across the page
- Site information -- modifying the site title, contact information, copyright text, etc.
- User accounts

Site Information

Editing Existing Record

Site name (max 50 characters)

Vitro

Contact email address contact form submissions will be sent to this address

Theme

vitro



Copyright text used in footer (e.g., name of your institution)

Copyright URL copyright text links to this URL

Save changes

Cancel

User accounts

- We recommend adding a user account at the 'site admin' level and then not running as the root user
- A site admin user has all the privileges needed
- It may be confusing to run as the root user since that user is not subject to some display controls (e.g., property visibility)