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VOCBENCH

ENDORSE.

THE EUROPEAN DATA CONFERENCE ON REFERENCE DATA AND SEMANTICS

What is VocBench?

An open source vocabulary management tool

Internal sharing

- Publications Office teams and projects

Corporate access

- EU Institutions
- EU Member States
- International organisations



University of Rome Tor Vergata



ISA² Programme of the European Commission



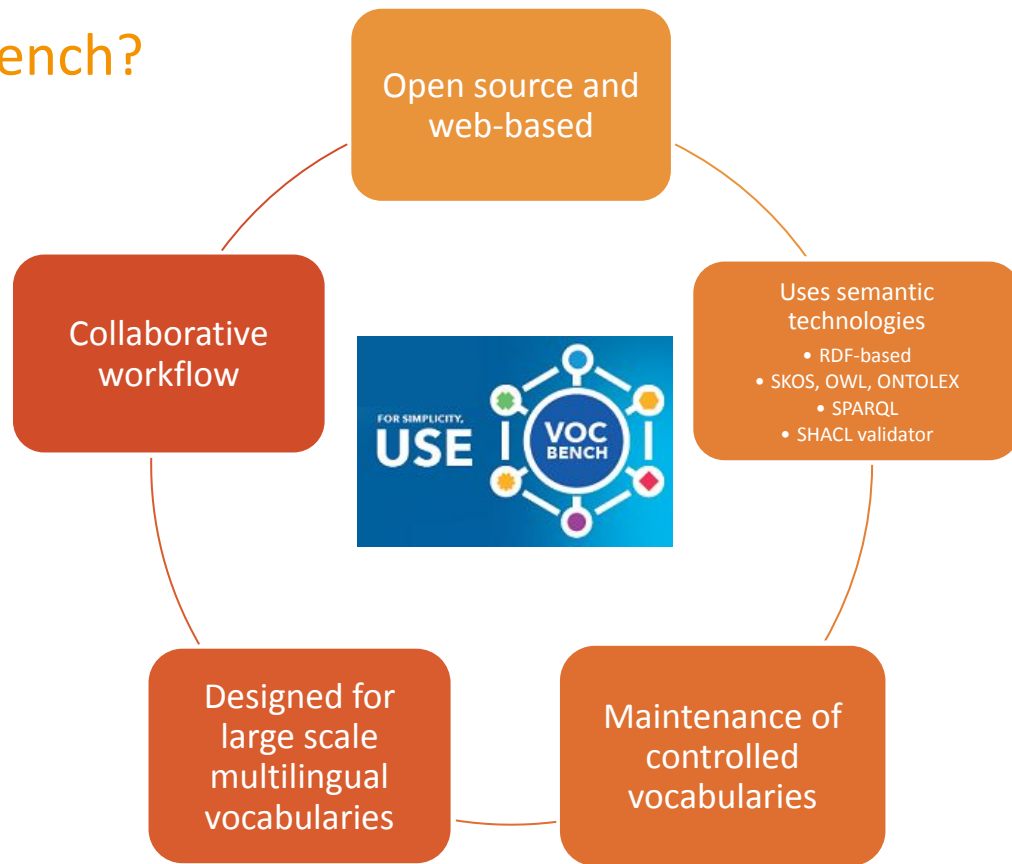
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A collaborative platform

What is VocBench?



Tools – Validation and History

The screenshot shows the VocBench interface with the 'Validation' tab selected. The left sidebar contains a tree of concepts, with 'contract staff (en), personale a contratto (it)' highlighted. The main area displays a list of concepts with their corresponding labels and descriptions. The interface is in Italian, showing terms like 'personale non statutario' and 'contrattisti'.

The screenshot shows the VocBench interface with the 'History' tab selected. The table lists actions performed on the project, including 'SKOSXLremoveAblLabel' and 'SKOSXLaddAblLabel'. Red boxes highlight the 'Action' and 'Other param(s)' columns. Annotations explain that actions are derived from code and that the number of parameters depends on the size of the screen.

Actions are immediately derived from the code implementing the available services

The number of parameters being shown depends on the size of the screen

It is still possible to inspect the complete list of parameters

SPARQL editor

SPARQL editor interface showing a query and its results.

Query:

```
1 > PREFIX <>
11
12 > SELECT * WHERE {
13   ?s ?p ?o .
14 } LIMIT 10
```

Results:

subj	obj
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2002/07/owl#Class>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2004/02/skos/core#Concept>	<http://www.w3.org/2004/02/skos/core#Concept>

Results count: 14 (Done in 29 millisecc)

Footer: v. 4.0.1-beta.1 © ART Group, 2016

Import/export vocabularies

About VocBench ▾ Current project: TestIO Global Data Management ▾

VocBench Projects Data SPARQL Tools ▾

Load Data: 

Load from: File ▾

File: Select a file...

RDF Lifter: Format:

Base URI: ☒ Use project baseURI Resolve imports:

Import transformations:   

Here it is possible to create and configure a sequence of transformers to be applied during the import process. 

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About VocBench ▾ Current project: TestIO Global Data Management ▾

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Export data: 

Graphs to export

☒ http://example.org/
☐ http://www.w3.org/1999/02/22-rdf-syntax-ns
☐ http://www.w3.org/2000/01/rdf-schema
☐ http://www.w3.org/2002/07/owl
☐ http://www.w3.org/2004/02/skos/core

Export transformations:   

Here it is possible to create and configure a sequence of transformations to be applied during the export process. Each transformer is applied to a subset of the exported graphs. No graph means every exported graph. 

1 Delete Property Value RDF Transformer  

2 SPARQL RDF Transformer   

3 XLabel Dereification RDF Transformer  

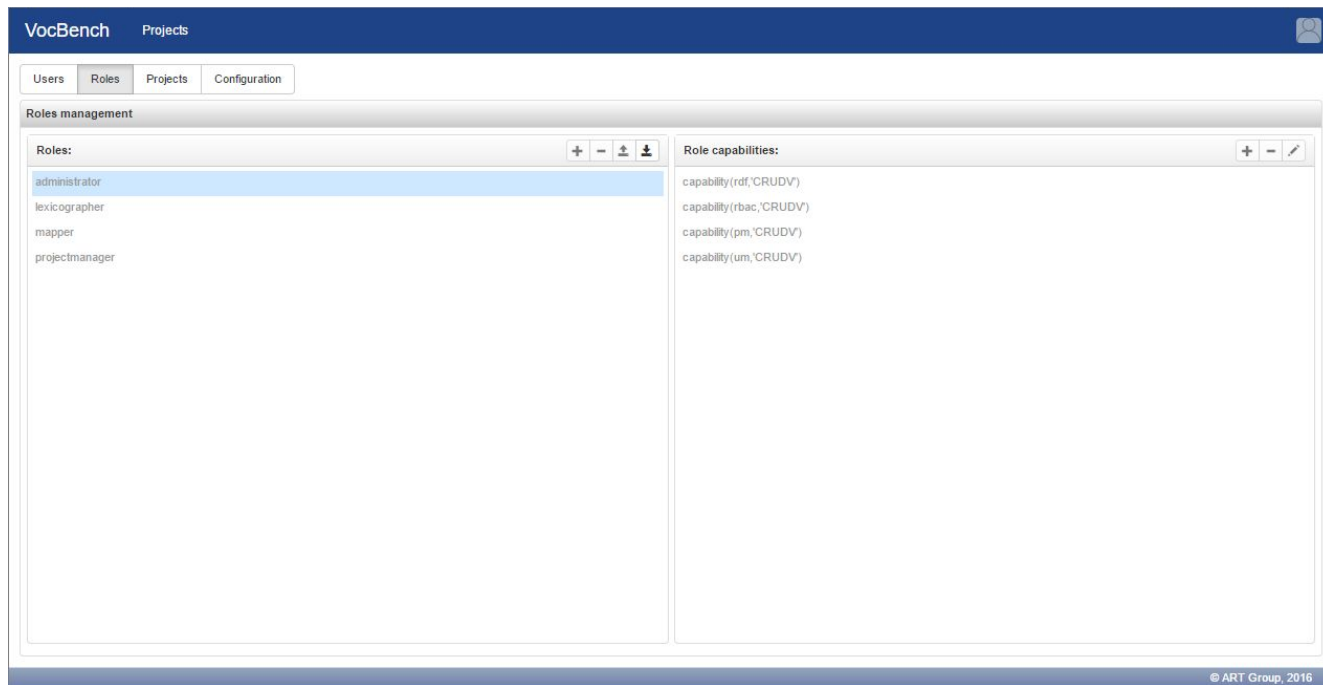
Deployment:

Reformatter: Export Format:

☐ Include inferred

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User management



Integrity Constraint Validation (ICV)

VocBenchProjectsDataSPARQLTools

Integrity Constraint Validator:

Structural checks

Dangling concepts	skos:Concept(s) that have no skos:broader or are not skos:topConceptOf in the skos:ConceptScheme where they belong	Go
Omitted topConcept	skos:ConceptScheme(s) that have no top concept	Go
Concepts in no scheme	skos:Concept(s) that doesn't belong to any scheme	Go
TopConcept with broader	skos:Concept(s) that are skos:topConceptOf some scheme and have some skos:broader concept	Go
Concepts related disjoint relations	skos:Concept(s) connected to another with both the skos:related and the skos:broaderTransitive (skos:related relation is disjoint with skos:broaderTransitive)	Go
Concepts exactMatch disjoint relations	skos:Concept(s) connected to another with both the skos:exactMatch and one of skos:broadMatch or skos:relatedMatch (skos:exactMatch relation is disjoint with skos:broadMatch and skos:relatedMatch)	Go
Hierarchical redundancies	skos:Concept(s) that have redundant hierarchical relations with another concept	Go
Cyclic hierarchical concepts	skos:Concept(s) that compose a hierarchical cycle through the skos:narrower and skos:broader relations	Go

Label checks

No skosxl:prefLabel resources	skos:Concept(s) or skos:ConceptScheme(s) that don't have any skosxl:prefLabel	Go
No mandatory label resources	Resources that don't have any label in the given languages	Go
Only alternative label resources	Resources that have an alternative label but not a preferred in the same language	Go
No language tag label resources	Resources that have a label without language tag	Go
Overlapped label resources	Resources that have the same label in the same language duplicated as pref, alt or hidden label	Go
Conflictual label resources	Resources that have the same label in the same language	Go
Extra whitespace label resources	Resources that have some extra whitespace in a label	Go
Multiple preferred labels resources	Resources that have multiple preferred labels in the same language	Go
Dangling skosxl:Label(s)	skosxl:Label(s) that are not linked with any skos:Concept	Go

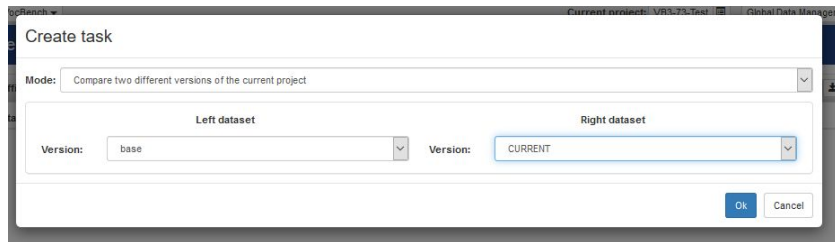
Generic checks

No definition resources	Resources that don't have any skos definition in the given language(s)	Go
Broken alignments	Alignment where the object resource doesn't exist or is deprecated	Go
Broken definitions	Definitions of resources where the object resource doesn't exist or is deprecated	Go
Invalid URI local resources	Locally defined resources with syntactically invalid URI	Go

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Skos Diffing



Diffing results

Removed resources

Resource: <http://vb3.test-73.org/c_2a2afb89>

- **Types:**
 - <http://www.w3.org/2004/02/skos/core#Concept>
- **Lexicalizations:**
 - "Second Concept"@en

Added resources

Resource: <http://vb3.test-73.org/c_94aaa218>

- **Types:**
 - <http://www.w3.org/2004/02/skos/core#Concept>
- **Lexicalizations:**
 - "Third Concept"@en

Changed resources

Resource: <http://vb3.test-73.org/c_da9a1ae4>

- **Removed lexicalizations:**
 - **Property:** <http://www.w3.org/2008/05/skos-xl#prefLabel>
 - **Values:**
 - "First Concept"@en
- **Added lexicalizations:**
 - **Property:** <http://www.w3.org/2008/05/skos-xl#prefLabel>
 - **Values:**
 - "First Concept v2"@en
- **Removed notes:**
 - **Property:** <http://www.w3.org/2004/02/skos/core#definition>
 - **Values:**
 - "First draft definition"@en
- **Added notes:**
 - **Property:** <http://www.w3.org/2004/02/skos/core#definition>
 - **Values:**
 - "First definition"@en
- **Removed property-values:**
- **Added property-values:**

Projects

About VocBench Current project: -----

VocBench Projects 

Create   

Project Name	Open/Close	Accessed	Model	Lexicalization	History	Validation	Repository Location	Actions
Agrovoc_zeus		☐	SKOS	SKOSXL	✗	✗	remote 	 ▾
CDM		☐	OWL	RDFS	✗	✗	local	 ▾
Curia		☐	SKOS	SKOS	✗	✗	local	 ▾
Eurovoc_HV		☐	SKOS	SKOSXL	✓	✓	remote 	 ▾
foaf		☐	RDFS	RDFS	✗	✗	local	 ▾
GEMET		☐	SKOS	SKOS	✗	✗	local	 ▾
lasted		☐	OWL	RDFS	✗	✗	local	 ▾
LandAndWater		☐	SKOS	SKOSXL	✗	✗	local	 ▾
sigkdd		☐	OWL	RDFS	✗	✗	local	 ▾
Teseo_GDB_8.8		☐	SKOS	SKOSXL	✗	✗	remote 	 ▾
Wordnet_gdb88		☐	OntoLex	OntoLex	✗	✗	remote 	 ▾

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Projects

The screenshot displays the VocBench web application interface. The top navigation bar includes 'About VocBench', 'Data', 'Metadata', 'SPARQL', 'History', 'Validation', and 'Tools'. The current project is 'OP_AT_country' and 'Global Data Management' is selected. The left sidebar shows a list of countries, with 'Belgium (en)' selected. The main content area has tabs for 'Types', 'Top Concept of', 'Schemes', and 'Broaders'. The 'Types' tab is active, showing 'skos:Concept' and 'Country (en)'. The 'Schemes' tab shows 'skos:inScheme' and 'Country (en)'. The 'Broaders' tab shows a list of lexicalizations for Belgium in various languages and scripts, including 'Belgien', 'Belgija', 'Bélgica', 'Belgie', 'Belgien', 'Bělyo', 'Belgium', 'Bélgica', 'Belgia', and 'Belgika'. The interface is highlighted with red boxes around the 'Belgium (en)' header, the 'Types' tab, the 'Schemes' tab, and the 'Broaders' tab.

Projects

▼ wildlife (en)

- ▼ animal life (en)
 - amphibian (en)
 - bird (en)
 - insect (en)**
 - reptile (en)
- ▼ wild mammal (en)
- marine life (en)
- plant life (en)
- protected species (en)

Other properties:

- dct:created: 2011-02-24
- dct:dateAccepted: 2012-09-27
- dct:dateSubmitted: 2012-06-27
- euvo:startDate: 1965-04-03
- lemon:context: <http://publications.europa.eu/resource/authority/use-context:IMMC>

insect (en) <http://eurovoc.europa.eu/5678>

Rename

Types:

rdfs:type

skos:Concept

Top Concept of:

Schemes:

skos:inScheme

5211 natural environment (en)

EuroVoc (en)

Broaders:

skos:broader

animal life (en)

Lexicalizations:

skos:prefLabel

háceoxomo

hmyz

insekt

Insekt

čvrtojo

insect

insecto

putukas

hyönteinen

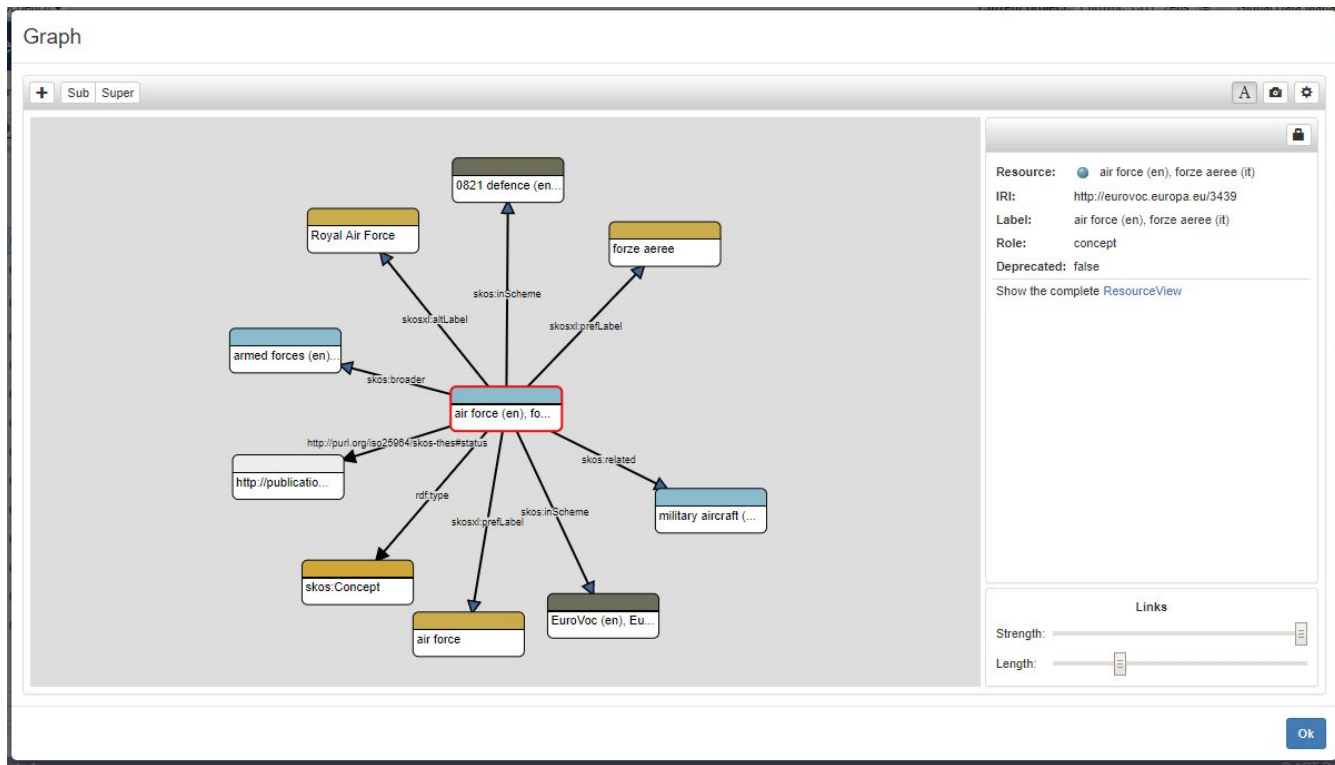
insecta

Show all...

ResView TermView Code

Status

Graph view



Alignments

VocBench Projects Data SPARQL Tools

Alignment Validation: Settings

Alignment file: Load

Source ontology baseURI:

Target ontology baseURI:

Source entity	target entity	Relation	Mapping Property	Action	Status
http://lasted#Author	http://sigkdd#Author	=		Accept	Reject
http://lasted#Conference_hall	http://sigkdd#Conference_hall	=		Accept	Reject
http://lasted#Deadline	http://sigkdd#Deadline	=		Accept	Reject
http://lasted#Deadline_for_notification_of_acceptance	http://sigkdd#Deadline_Author_notification	=		Accept	Reject
http://lasted#Fee	http://sigkdd#Fee	<		Accept	Reject
http://lasted#Listener	http://sigkdd#Listener	=		Accept	Reject
http://lasted#Main_office	http://sigkdd#Main_office	=		Accept	Reject
http://lasted#Nonmember_registration_fee	http://sigkdd#Registration_Non-Member	=		Accept	Reject
http://lasted#Person	http://sigkdd#Person	=		Accept	Reject
http://lasted#Place	http://sigkdd#Place	=		Accept	Reject
http://lasted#Registration_fee	http://sigkdd#Registration_fee	=		Accept	Reject
http://lasted#Review	http://sigkdd#Review	=		Accept	Reject
http://lasted#Speaker	http://sigkdd#Speaker	=		Accept	Reject
http://lasted#Sponsor	http://sigkdd#Sponsor	=		Accept	Reject
http://lasted#Student_registration_fee	http://sigkdd#Registration_Student	=		Accept	Reject

Quick Actions: Do quick action

Apply to Ontology Export as...

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Thank you for your attention!

Get in touch!

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