

# RDF Profiler

## Support in existing Core DPU

Existing Core Plugins which output RDF data can use RDF Profiler extension (from the respective versions of these DPUs which use UnifiedViews API 3.0.1-SNAPSHOT+). To activate that, just go to the DPU configuration, RDF Profiler tab, where you can decide to profile output data produced by certain output RDF data unit of your choice.

DPU configuration **RDF Profiler** RDF Validator About

Enabled

**Output data unit to be profiled**

output

Then, when running the DPU having profiler enabled, profiler is automatically executed after the execution of that DPU and new message appears in the events monitor showing reports about the results of profiling. I

Events	Log	Browse/Query	
type	Timestamp	DPU Instance	Short message
	Jul 14, 2017 10:05:55		Starting execution: 52
	Jul 14, 2017 10:05:56	uv-e-sparqlEndpoint	Starting DPU developer's code for DPU: 22
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	5,000 triples extracted
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	RDF Profiler started on output data unit: output
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	RDF Profiler on output : 5,000 triple(s)
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	RDF Profiler on output: List of classes/properties (see details)
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	RDF Profiler on output: Sample data (see details)
	Jul 14, 2017 10:06:05	uv-e-sparqlEndpoint	DPU: 22 completed.
	Jul 14, 2017 10:06:05		Execution: 52 finished

In particular, it shows:

- Number of triples in the data unit
- Top 100 classes and number of instances for each such class
- Top 100 predicates and number of occurrences for each such predicate
- Descriptions of up to 5 sample resources for the most often used classes from top 100 classes

See below sample reports:

## Top 100 classes

Class	Number of instances	Sample
<a href="http://www.w3.org/2004/02/skos/core#Concept">http://www.w3.org/2004/02/skos/core#Concept</a>	1580	<a href="http://linked.opendata.cz/resource/cpv-2008/concept/24327300">http://linked.opendata.cz/resource/cpv-2008/concept/24327300</a>
<a href="http://www.w3.org/2004/02/skos/core#ConceptScheme">http://www.w3.org/2004/02/skos/core#ConceptScheme</a>	2	<a href="http://linked.opendata.cz/resource/concept-scheme/cpv-2008-supplement">http://linked.opendata.cz/resource/concept-scheme/cpv-2008-supplement</a>
<a href="http://rdfs.org/ns/void#Dataset">http://rdfs.org/ns/void#Dataset</a>	1	<a href="http://linked.opendata.cz/resource/dataset/cpv-2008">http://linked.opendata.cz/resource/dataset/cpv-2008</a>
<a href="http://www.w3.org/ns/prov#Entity">http://www.w3.org/ns/prov#Entity</a>	1	<a href="http://linked.opendata.cz/resource/dataset/cpv-2008">http://linked.opendata.cz/resource/dataset/cpv-2008</a>

## Top 100 predicates

Predicate	Number of occurrences	Sample
<a href="http://www.w3.org/2004/02/skos/core#prefLabel">http://www.w3.org/2004/02/skos/core#prefLabel</a>	6817	Vaselin
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	1584	<a href="http://www.w3.org/ns/prov#Entity">http://www.w3.org/ns/prov#Entity</a>
<a href="http://www.w3.org/2004/02/skos/core#inScheme">http://www.w3.org/2004/02/skos/core#inScheme</a>	1579	<a href="http://linked.opendata.cz/resource/concept-scheme/cpv-2008">http://linked.opendata.cz/resource/concept-scheme/cpv-2008</a>
<a href="http://www.w3.org/2004/02/skos/core#topConceptOf">http://www.w3.org/2004/02/skos/core#topConceptOf</a>	9	<a href="http://linked.opendata.cz/resource/concept-scheme/cpv-2008">http://linked.opendata.cz/resource/concept-scheme/cpv-2008</a>
<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>	4	Common Procurement Vocabulary 2008
<a href="http://purl.org/dc/terms/created">http://purl.org/dc/terms/created</a>	2	2008-01-01+01:00
<a href="http://purl.org/dc/terms/description">http://purl.org/dc/terms/description</a>	2	Slovník CPV 2008 - Common Procurement Vocabulary 2008 - prevedeny do RDF
<a href="http://purl.org/dc/terms/modified">http://purl.org/dc/terms/modified</a>	1	2013-11-11+01:00
<a href="http://purl.org/dc/terms/publisher">http://purl.org/dc/terms/publisher</a>	1	<a href="http://opendata.cz">http://opendata.cz</a>
<a href="http://purl.org/dc/terms/source">http://purl.org/dc/terms/source</a>	1	<a href="http://simap.europa.eu/news/new-cpv/cpv_2008_xml.zip">http://simap.europa.eu/news/new-cpv/cpv_2008_xml.zip</a>

## Details about up to 5 sample resources - instances of the most used classes

### Max 30 predicates/object values for <http://linked.opendata.cz/resource/cpv-2008/concept/24327300>

Predicate	Object
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="http://www.w3.org/2004/02/skos/core#Concept">http://www.w3.org/2004/02/skos/core#Concept</a>

### Max 30 predicates/object values for <http://linked.opendata.cz/resource/concept-scheme/cpv-2008-supplement>

Predicate	Object
<a href="http://purl.org/dc/terms/created">http://purl.org/dc/terms/created</a>	2008-01-01+01:00
<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>	Common Procurement Vocabulary 2008 Supplementary Codes
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="http://www.w3.org/2004/02/skos/core#ConceptScheme">http://www.w3.org/2004/02/skos/core#ConceptScheme</a>

### Max 30 predicates/object values for <http://linked.opendata.cz/resource/dataset/cpv-2008>

Predicate	Object
<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>	Common Procurement Vocabulary 2008
<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>	Slovník CPV 2008 - Common Procurement Vocabulary 2008
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="http://rdfs.org/ns/void#Dataset">http://rdfs.org/ns/void#Dataset</a>
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="http://www.w3.org/ns/prov#Entity">http://www.w3.org/ns/prov#Entity</a>
<a href="http://purl.org/dc/terms/description">http://purl.org/dc/terms/description</a>	Slovník CPV 2008 - Common Procurement Vocabulary 2008 - prevedeny do RDF
<a href="http://purl.org/dc/terms/description">http://purl.org/dc/terms/description</a>	Common Procurement Vocabulary 2008 converted to RDF
<a href="http://purl.org/dc/terms/modified">http://purl.org/dc/terms/modified</a>	2013-11-11+01:00
<a href="http://purl.org/dc/terms/publisher">http://purl.org/dc/terms/publisher</a>	<a href="http://opendata.cz">http://opendata.cz</a>
<a href="http://purl.org/dc/terms/source">http://purl.org/dc/terms/source</a>	<a href="http://simap.europa.eu/news/new-cpv/cpv_2008_xml.zip">http://simap.europa.eu/news/new-cpv/cpv_2008_xml.zip</a>

## Support in Your custom DPUs

You may simply turn on for every DPU RDF Profiler extension by inserting the following fragment to you main DPU class:

```
@ExtensionInitializer.Init
public RdfProfiler rdfProfiler;
```



In order to use this extension, you have to build your DPUs with Plugin-devEnv version 3.0.1-SNAPSHOT+. In pom.xml, you have to define:

```
<parent>
<groupId>eu.unifiedviews</groupId>
<artifactId>uv-pom-dpu</artifactId>
<version>3.0.1-SNAPSHOT</version>
<relativePath />
</parent>
```