

Description

This directory contains the ontology version descriptions for the domain Fish. Following are the descriptions of the files that are contained.

Ontology Version	Ontology File	Data File
1	ExampleO11.owl	Datao11.owl
2	ExampleO12.owl	Datao12.owl

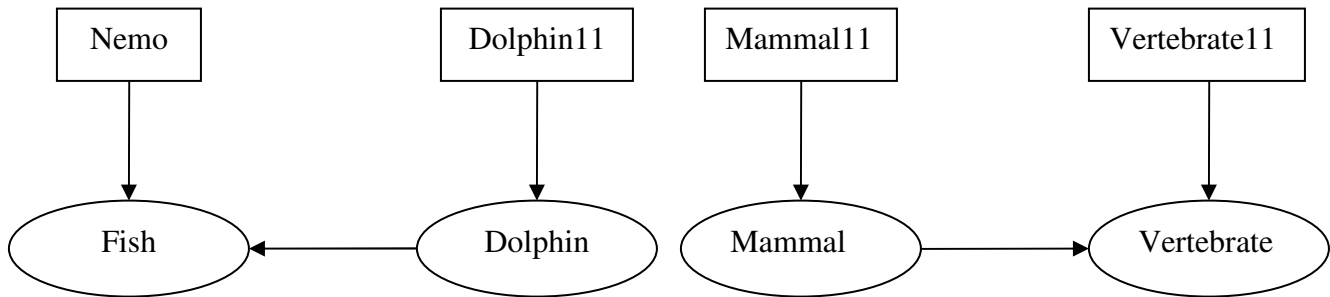
Backward Compatibility

Version 2 is backward compatible with Version 1.

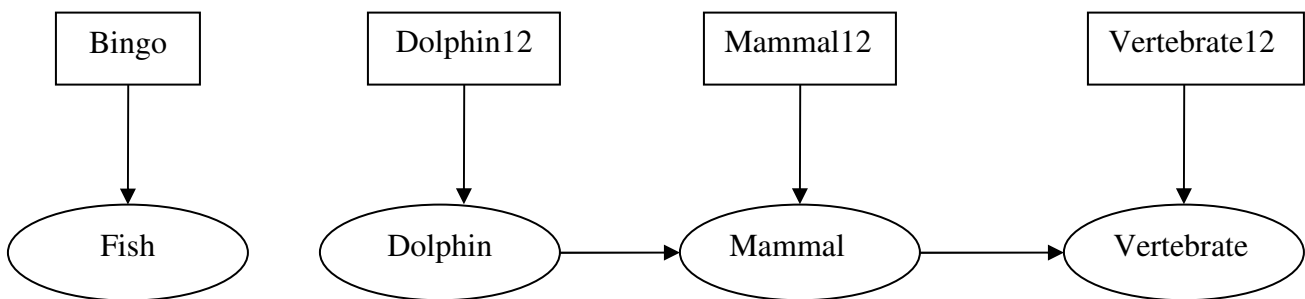
This document further contains the Diagrammatic representation of the Ontology version and some sample query results obtained through the designed Type Graph model. Some of the query samples (sample #1 and sample #7) have the actual RDQL queries and the files that are to be given to the GUI. This will give an insight of the syntax used for querying.

Diagrammatic Representation of Fish Ontology (Directory – Fishy)

Ontology Version-1 O_{v1}



Ontology Version-2 O_{v2}



Sample Query Results for Fish Ontology with different Perspectives

1) Querying for “Dolphin” with Perspective “O_{V1}”

In the GUI, where it says “type the url here”, give

<file:///c:/dione/fishy/ExampleO11.owl> (or wherever you have stored the owl file)

You should see something like this in the loaded documents window,

- <file:///c:/dione/fishy/ExampleO11.owl>

Now load all the data files linked to the owl files, for example

<file:///c:/dione/fishy/datao11.owl>

Note: this is done manually for all the data files. System will not automatically load data files for backward compatible files as it does in the case of the ontology files. However, in this case there is just one document to be loaded, a relevant example is given in sample 7 below.

In the section Input you RDQL query paste the following query,

```
SELECT ?x WHERE (?x rdf:type O1:Dolphin)
USING rdf FOR <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
rdfs FOR <http://www.w3.org/2000/01/rdf-schema#>
owl FOR <http://www.w3.org/2002/07/owl>
O1 for <file:///c:/dione/fishy/ExampleO11.owl#>
```

Results:

```
(x, file:///c:/dione/fishy/datao11.owl#Dolphin11)
1 answers
```

2) Querying for “Vertebrate” with Perspective “O_{V1}”

Results:

```
(x, file:///c:/dione/fishy/datao11.owl#Vertebrate11)
(x, file:///c:/dione/fishy/datao11.owl#Mammal11)
2 answers
```

3) Querying for “Fish” with Perspective “O_{V1}”

Results:

(x, file:///c:/dione/fishy/datao11.owl#Dolphin11)
(x, file:///c:/dione/fishy/datao11.owl#Nemo)
2 answers

4) Querying for “Dolphin” with Perspective “O_{V2}”

Results:

(x, file:///c:/dione/fishy/datao12.owl#Dolphin12)
(x, file:///c:/dione/fishy/datao11.owl#Dolphin11)
2 answers

5) Querying for “Fish” with Perspective “O_{V2}”

Results:

(x, file:///c:/dione/fishy/datao12.owl#Bingo)
(x, file:///c:/dione/fishy/datao11.owl#Nemo)
2 answers

6) Querying for “Mammal” with Perspective “O_{V2}”

Results:

(x, file:///c:/dione/fishy/datao12.owl#Mammal12)
(x, file:///c:/dione/fishy/datao11.owl#Mammal11)
(x, file:///c:/dione/fishy/datao12.owl#Dolphin12)
(x, file:///c:/dione/fishy/datao11.owl#Dolphin11)
4 answers

7) Querying for “Vertebrate” with Perspective “O_{V2}”

In the GUI, where it says “type the url here”, give

<file:///c:/dione/fishy/ExampleO12.owl> (or wherever you have stored the owl file)

On pressing load you should see all the documents that are loaded automatically, for example the owl files for the ontology that are backward compatible with ExampleO12

You should see something like this in the loaded documents window,

- file:///c:/dione/fishy/ExampleO12.owl
- file:///c:/dione/fishy/ExampleO11.owl

Now load all the data files linked to the owl files, for example

file:///c:/dione/fishy/datao12.owl

file:///c:/dione/fishy/datao11.owl

Note: this is done manually for all the data files. System will not automatically load data files for backward compatible files as it did in the case of the ontology files above

In the section Input you RDQL query paste the following query,

```
SELECT ?x WHERE (?x rdf:type O1:Vertebrate)
USING rdf FOR <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
rdfs FOR <http://www.w3.org/2000/01/rdf-schema#>
owl FOR <http://www.w3.org/2002/07/owl>
O1 for <file:///c:/dione/fishy/ExampleO12.owl#>
```

Press “Query using VPI”. It will give the following results,

Results:

```
(x, file:///c:/dione/fishy/datao12.owl#Mammal12)
(x, file:///c:/dione/fishy/datao11.owl#Mammal11)
(x, file:///c:/dione/fishy/datao12.owl#Vertebrate12)
(x, file:///c:/dione/fishy/datao11.owl#Dolphin11)
(x, file:///c:/dione/fishy/datao12.owl#Dolphin12)
(x, file:///c:/dione/fishy/datao11.owl#Vertebrate11)
6 answers
```

If you press “Query without VPI”, it should give

Results:

```
(x, file:///c:/dione/fishy/datao12.owl#Vertebrate12)
(x, file:///c:/dione/fishy/datao12.owl#Mammal12)
(x, file:///c:/dione/fishy/datao12.owl#Dolphin12)
3 answers
```

(which is correct since after removing the VPI factor, it will simply output instances linked to the Vertebrate class and its subclasses within version 2 of the ontology only)

