INTERNATIONAL STANDARD

ISO 19150-2

Geographic information — Ontology —

Part 2:
Rules for developing ontologies in the Web Ontology Language (OWL)

AMENDMENT 1

Information géographique — Ontologie —

Partie 2: Règles pour le développement d'ontologies dans le langage d'ontologie Web (OWL)

AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 211, *Geographic information/geomatics*.

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Page 26, Clause 6.7.2.3

Replace Table 16 and the example following the Table with the following. This corrects the description of a skos:collection for the purpose of codelist implementation by rectifying the declaration of skos: members to skos:member.

Table 16 — Code list

Requirement
19150-2package:codelist
A CODELIST shall correspond to a Class <OWL>, a ConceptScheme <SKOS>, and a Collection <SKOS>. The Class <OWL> shall be a subclass of *skos:Concept*. The SKOS concept scheme shall be related to the Class <OWL> using a *dct:isFormatOf property*. Each member of the CODELIST shall correspond to an individual whose type is the Class <OWL> corresponding to the CODELIST, and with a *skos:inScheme* property whose value is the ConceptScheme <SKOS> corresponding to the CODELIST. Additionally, each member of the CODELIST shall also be member of the Collection <SKOS> using a *skos:member* declaration. Each of the resources shall be annotated with the following: — a label, using *rdfs:label*, — a source for the definition, using *rdfs: isDefinedBy* for the IRI of the resource.

The following example illustrates the construction of a CodeList using the OWL and SKOS elements.

EXAMPLE

RDF/Turtle serialization

```
exPk:ClassA a owl:Class ;
  rdfs:subClassOf skos:Concept ;
  rdfs:label "ClassA" ;
  rdfs:isDefinedBy <http://sourceDefinitionIRI> .
exPkCode:ClassA a skos:ConceptScheme ;
  skos:prefLabel "ClassA - ConceptScheme" ;
  rdfs:isDefinedBy <http://sourceDefinitionIRI> ;
  dct:isFormatOf exPk:ClassA .
exPkCode:ClassA/value1 a exPk:ClassA , skos:Concept ;
  skos:prefLabel "value1" ;
  skos:inScheme exPkCode:ClassA ;
  rdfs:isDefinedBy <http://sourceDefinitionIRI> .
exPkCode:ClassA/value2 a exPk:ClassA , skos:Concept ;
  skos:prefLabel "value2" ;
  skos:inScheme exPkCode:ClassA ;
  rdfs:isDefinedBy <http://sourceDefinitionIRI> .
exPkCode:ClassA/value3 a exPk:ClassA , skos:Concept ;
  skos:prefLabel "value3" ;
  skos:inScheme exPkCode:ClassA ;
  rdfs:isDefinedBy <http://sourceDefinitionIRI> .
```

```
exPkCode: ClassACollection a skos:Collection ;
  skos:prefLabel "ClassA - Concepts" ;
  skos:member exPkCode: ClassA/value1 ;
  skos:member exPkCode: ClassA/value2 ;
  skos:member exPkCode: ClassA/value3 .
```

RDF/XML serialization

```
<owl:Class rdf:about="&exPk;ClassA">
  <rdfs:label>ClassA</rdfs:label>
  <rdfs:isDefinedBy>http://sourceDefinitionIRI</rdfs:isDefinedBy>
  <rdfs:subClassOf rdf:resource="&skos;Concept"/>
</owl:Class>
<skos:ConceptScheme rdf:about="&exPkCode;ClassA">
  <skos:prefLabel>ClassA - ConceptScheme</skos:prefLabel>
  <rdfs:isDefinedBy>http://sourceDefinitionIRI</rdfs:isDefinedBy>
  <dct:isFormatOf rdf:resource="&exPk;ClassA"/>
</skos:ConceptScheme>
<exPk:ClassA rdf:about="&exPkCode;ClassA/value1">
  <rdf:type rdf:resource="skos:Concept"/>
  <skos:prefLabel>value1</skos:prefLabel>
  <skos:inScheme rdf:resource="exPkCode:ClassA"/>
  <rdfs:isDefinedBy>http://sourceDefinitionIRI</rdfs:isDefinedBy>
</exPk:ClassA>
<exPk:ClassA rdf:about="&exPkCode;ClassA/value2">
  <rdf:type rdf:resource="skos:Concept"/>
  <skos:prefLabel>value2</skos:prefLabel>
  <skos:inScheme rdf:resource="exPkCode:ClassA"/>
  <rdfs:isDefinedBy>http://sourceDefinitionIRI</rdfs:isDefinedBy>
</exPk:ClassA>
<exPk:ClassA rdf:about="&exPkCode;ClassA/value3">
  <rdf:type rdf:resource="skos:Concept"/>
  <skos:prefLabel>value3</skos:prefLabel>
  <skos:inScheme rdf:resource="exPkCode:ClassA"/>
  <rdfs:isDefinedBy>http://sourceDefinitionIRI</rdfs:isDefinedBy>
</exPk:ClassA>
<skos:Collection rdf:about="&exPkCode;ClassACollection">
  <skos:prefLabel>ClassA - Concepts</skos:prefLabel>
  <skos:member rdf:resource="&exPkCode;ClassA/value1"/>
  <skos:member rdf:resource="&exPkCode;ClassA/value2"/>
  <skos:member rdf:resource="&exPkCode;ClassA/value3"/>
</owl:Collection>
```