

SC32/WG2 Issue Management

[Bugzilla](#) Version 2.18

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Issue 459 - CD2 Ballot Comment WG2 N1288 Seq 70 4.5.1 Rules in Table 4-1

Issue#: [459](#) **Product:** 11179-3_ED3 **Version:** ED3 **Platform:** Other
OS/Version: other **Status:** RESOLVED **Severity:** minor technical **Priority:** P3 normal
Resolution: FIXED **Assigned To:** gatesray@rogers.com **Reported By:** okabe.masao@tepco.co.jp **QA Contact:** gatesray@rogers.com
Component: 05. metamodel **Target Milestone:** ---
URL:
Summary: CD2 Ballot Comment WG2 N1288 Seq 70 4.5.1 Rules in Table 4-1
Status Whiteboard:
Opened: 2009-05-26 08:55 ET
Description:

The meanings of Rule 1,..., Rule 7 and one or more, none are unclear. Needs some text to explain what this table means.

This is my personal comment. Japanese official ballot comments may or may not include this and are not limited to this.

----- *Additional Comment #1* From [Ray Gates](#) 2009-07-18 22:28 ET -----

This issue became Japanese comment JP 09 (#70 in WG2 N1288). The comment was accepted. Left as assigned until revised text is provided.

----- *Additional Comment #2* From [Ray Gates](#) 2009-11-14 05:20 ET -----

[Created an attachment \(id=514\)](#) [[edit](#)]
Proposed resolution

The attachment contains the proposed revised text, extracted from WG2 N1326.

----- *Additional Comment #3* From [Ray Gates](#) 2009-11-14 05:23 ET -----

Changing status to Resolved/Fixed, based on proposed solution contained in the attachment to [comment #2](#).

Issue 460 - CD2 Ballot Comment WG2 N1288 Seq 068 (JP 08) Clause 5-10

Issue#: [460](#) **Product:** 11179-3_ED3 **Version:** ED3 **Platform:** Other
OS/Version: other **Status:** RESOLVED **Severity:** major editorial **Priority:** P3 normal
Resolution: WONTFIX **Assigned To:** gatesray@rogers.com **Reported By:** okabe.masao@tepco.co.jp **QA Contact:** gatesray@rogers.com
Component: 05. metamodel **Target Milestone:** ---
URL:
Summary: CD2 Ballot Comment WG2 N1288 Seq 068 (JP 08) Clause 5-10
Status Whiteboard:
Opened: 2009-05-26 08:56 ET
Description:

It is difficult (impossible?) to know what types of items at 4.5 each (meta) class in clause 5-10 has as its supertype (superclass?). It should be clearly stated somewhere.

This is my personal comment. Japanese official ballot comments may or may not include this and are not limited to this.

----- Additional Comment #1 From [Ray Gates](#) 2009-05-26 22:36 ET -----

The standard no longer specifies the sub-typing, as Edition 2 did, but provides the flexibility for a Registration Authority to choose what works best for their organization.

The text below Fig 4-2 explains this as follows:

Any metadata item entered into a metadata registry may be extended by one or more of the above types, as follows:

„O Any metadata item that is to be retrieved directly (as opposed to indirectly through a related item), shall be an Identified_Item (see 6.1.2.1), so the item may be referenced. An example of metadata items that might not be explicitly identified are the permissible values within a value domain.

„O Any metadata item that is to be designated (named) and/or defined shall be a Designatable_Item (see 6.2.2.1).

Note: The separation of Designation and Definition from Identification has been done to better harmonize with ISO/IEC 19763-2, in which ModelElements are identified and are administered, but are not (required to be) designated or defined.

„O Any metadata item that is to be registered in the registry shall be a Registered_Item (see 7.1.2.1). Registered_Item is an abstract class, which means that each such item must be instantiated as one of the subtypes: Administered_Item (see 0), or Attached_Item (see 7.1.2.3). These subtypes are exhaustive and mutually exclusive.

„O Any metadata item that is to be classified in a classification scheme shall be a Classifiable_Item (see 8.2.2.1).

A Registration_Authority responsible for the registry shall determine which metadata items should become Identified_Items, Registered_Items, Designatable_Items and/or Classifiable_Items, within the constraints of any conformance claim that is made for the registry. (See 12 Conformance.)

----- Additional Comment #2 From [Ray Gates](#) 2009-07-18 22:33 ET -----

This comment became Japanese ballot comment JP 08 (#68 in WG2 N1288), which was subsequently withdrawn at the Jeju meeting.

Issue 461 - CD2 Ballot Comment WG2 N1288 Seq 76 Clause 5-10 - reference direct superclass

Issue#: 461	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: RESOLVED	Severity: major editorial	Priority: P3 normal
Resolution: FIXED	Assigned To: gatesray@rogers.com	Reported By: okabe.masao@tepcoco.jp	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		

URL:

Summary: CD2 Ballot Comment WG2 N1288 Seq 76 Clause 5-10 - reference direct superclass

Status Whiteboard:

Opened: 2009-05-26 08:57 ET

Description:

It is better to explicitly specify its direct super class at the definition of each class for easy understanding, in addition to Figure B-1, Annex B.

This is my personal comment. Japanese official ballot comments may or may not include this and are not limited to this.

----- Additional Comment #1 From [Ray Gates](#) 2009-05-26 22:42 ET -----

See response to Issue 460.

----- Additional Comment #2 From [Ray Gates](#) 2009-07-18 22:36 ET -----

This issue became Japanese comment JP 12 (#76 in WG2 N1288), which was accepted. Left as assigned until the change is made.

----- Additional Comment #3 From [Ray Gates](#) 2009-11-14 05:31 ET -----

Done in WG2 N1326 where a direct superclass exists. E.g.
 7.1.2.1 Registered_Item class
 7.1.2.1.1 Direct superclass
 Identified_Item (6.1.2.1).

Issue 479 - CD2 Ballot Comment WG2 N1284 Seq 95 Contact Data

Issue#: 479	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution:	Assigned	Reported	QA
	To: gatesray@rogers.com	By: gatesray@rogers.com	Contact: gatesray@rogers.com
Component: 05. metamodel		Target Milestone: ---	
URL:			
Summary: CD2 Ballot Comment WG2 N1284 Seq 95 Contact Data			
Status Whiteboard:			
Opened: 2009-06-29 12:55 ET			
Description:			

The following comment was submitted by the 19773 project editor:
 n subclause 5.1.3, the contact data does not use the 19773 contact data module. Contact data was one of the primary reasons for the creation of 19773 and a reusable set of modules.
 Proposal: Use the 19773 contact data module.

----- Additional Comment #1 From [Ray Gates](#) 2009-06-29 12:59 ET -----

In Jeju, the 19773 project editor informed the meeting that 19773 would be modified to allow the sharing on address information across contacts through the use of RefLit. If the revised text of 19773 is available before the 11179-3 editing/ballot resolution meeting closes, we will consider using the contact module. Otherwise, this comment will need to be resubmitted on the FCD ballot.

----- Additional Comment #2 From [Ray Gates](#) 2009-11-14 05:34 ET -----

Waiting for information from Frank Farance. Expected during the London meeting. If no information received by the end of the meeting, the comment will be closed with no action.

Issue 480 - CD2 Ballot Comment WG2 N1284 Seq 109 Slot vs IKV tuples

Issue#: 480	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution:	Assigned	Reported	QA
	To: gatesray@rogers.com	By: gatesray@rogers.com	Contact: gatesray@rogers.com
Component: 05. metamodel		Target Milestone: ---	
URL:			
Summary: CD2 Ballot Comment WG2 N1284 Seq 109 Slot vs IKV tuples			
Status Whiteboard:			
Opened: 2009-06-29 13:01 ET			

Description:

The 19773 project editor submitted the following comment:
 In subclause 6.1.2.4, the "slot" feature has already been developed in 19773 under IKV (identifier-kind-value) tuples.
 Proposal: Use 19773 IKV tuples for this feature.

----- Additional Comment #1 From [Ray Gates](#) 2009-06-29 13:06 ET -----

At the Jeju meeting, the 19773 project editor informed the meeting that it would be possible to invoke 19773 modules via an interface, allowing a 19773 data structure to be embedded within another structure. An interface should also allow for the renaming of the structure, so that we can use the name Slot in 11179-3, for compatibility with ebXML, while at the same time referencing the structure from 19773. If the revised text of 19773, showing how to use an interface, is available before the 11179-3 editing/ballot resolution meeting closes, we will consider making this change for the FCD. Otherwise, the comment will need to be resubmitted on the FCD ballot.

----- Additional Comment #2 From [Ray Gates](#) 2009-11-14 05:34 ET -----

Waiting for information from Frank Farance. Expected during the London meeting. If no information received by the end of the meeting, the comment will be closed with no action.

Issue 481 - CD2 Ballot Comment WG2 N1284 Seq 144 Registry Specification

Issue#: 481	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: RESOLVED	Severity: normal	Priority: P3 normal
Resolution: WONTFIX	Assigned To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		

URL:

Summary: CD2 Ballot Comment WG2 N1284 Seq 144 Registry Specification

Status Whiteboard:

Opened: 2009-06-29 13:09 ET

Description:

The 20944 project editor submitted the following comment:
 Clause 7 and subclause 7.1.2.9 specify global descriptive data that applies to a registry as a whole. To date, 11179 has not had any so-called registry-wide data. This is a compatibility question for 20944 access because it is unclear how to navigate to the data.

Furthermore, by using global values, it becomes impossible to aggregate, cache, and federate metadata because there is no mechanism for combining incompatible global data when caching/aggregating multiple registries. Likewise, federation becomes difficult because global parameters only apply to the present registry and none of the subordinate registries.

Finally, the notion of registry-global data means that the focus in Edition 3 has shifted from a specification of descriptive data (which could be stored in a registry, or stored as standalone metadata) to specification of descriptive data that MUST exist in a registry (i.e., standalone metadata is no longer possible). This is a significant change in understanding 11179 metadata standards.

Proposal:

Remove global features.

Refactor problem to use grouping feature (e.g., group lists, similar to topic maps).

----- Additional Comment #1 From [Ray Gates](#) 2009-06-29 13:17 ET -----

At the Jeju Editing/Ballot resolution meeting, the 11179-3 editor proposed the following response:

1. Registry_specification was added to resolve a previous ballot comment.

Removing it is not appropriate.

2. We should specifically address any issues raised by add Registry_specification. In particular:

- a) add text that if there is no registry, Registry_Specification is not required. If there are multiple registries, there should be one Registry_Specification per registry. [The Editing/BRM meeting accepted this proposal.]
- b) Add an optional association from Registration to Registry_Specification to indicate which registry the registration is in. This addresses the navigation issue. Registry_Specification should also be a top level access point when 20944 adds support for edition 3.
[Note: The Editing/BRM meeting did not yet reach a consensus on this proposal. There was concern that extending the model to support multiple registries potentially has other implications we have not thought of, and if the model is for only one registry the association is redundant. However, it is unclear what harm would be done by adding the association.]
- c) An alternate proposal is for 20944 to address the Registry_Specification when it opens the registry.

----- Additional Comment #2 From [Ray Gates](#) 2009-11-15 16:29 ET -----

On closer examination of the text, the previous suggestion of adding text to say that Registry_Specification is not required, seems unnecessary since only clause 11 is applicable when there is no registry.

Also, adding support for multiple registries needs further investigation, before we make any changes. The metamodel has always assumed a single registry, and adding support for multiple registries will likely require more than has been suggested in the previous comments.

Recommend no change to the text as a result of this comment. The edition of 20944 that is currently in progress is targeted at 11179 Edition 2. When a new edition is created targeted at 11179 Edition 3, we can look at available options for accessing the Registry_Specification.

Issue 482 - CD2 Ballot Comment WG2 N1284 Seq 157 Relation & Link

Issue#: 482	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution:	Assigned To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		
URL:			
Summary: CD2 Ballot Comment WG2 N1284 Seq 157 Relation & Link			
Status Whiteboard:			
Opened: 2009-06-29 18:42 ET			
Description:			

Japanese Ballot Comment JP 14 on 8.1.1 states:

Intuitively, Relation and Link are understood as disjoint.

Then, an ontology in RDF and OWL-full cannot be handled because a Relation may be a Link at the same time.

Note:

Concept has no problem because a concept in ISO 1087-1 may be a general concept (concept ,class) or individual concept (individual, instance).

----- Additional Comment #1 From [Ray Gates](#) 2009-06-29 18:45 ET -----

In the CD2 11179-3 metamodel, a Relation is a set of Links. If the set contains only one Link, would that be close enough to meet the needs of RDF and OWL-full?

In response to another ballot comment, it was agreed to remove all reference to Ontologies from the normative text. Thus we make no claim that 11179-3 can support an RDF or OWL-full ontology.

----- Additional Comment #2 From [OKABE, Masao](#) 2009-07-23 08:24 ET -----

What I was originally thinking was as follows:

For example, think about:

```
:isAtStrifeWith a rdf:Property.
:cat :isAtStrifeWith :dog.
:Tom :isAtStrifeWith :Fido.
:Tom a :cat.
:Fido a :dog.
```

In this case, the concept represented by ":cat :isAtStrifeWith :dog." can be registered as a Link.

At the same time, the concept represented by ":cat :isAtStrifeWith :dog." can be registered as also a Relation, since ":Tom :isAtStrifeWith :Fido." can be understood a member (or instance) of ":cat :isAtStrifeWith :dog.".

But, now, my understanding of Figure 8-1 is a little bit different. The distinction between Concept and Assertion is determined more syntactically. A Concept is a sign (atomic name) that denote a concept. An Assertion is a sentence (axioms, constraints) that characterize a concept or concepts and a form that can have a truth value (true or false). So, ":Tom :isAtStrifeWith :Fido.", ":cat :isAtStrifeWith :dog." and "isAtStrifeWith a rdf:Property." are all members of Assertion and the first one or two are members of Link, The concept characterized by these sentences and denoted by ":isAtStrifeWith" is a Relation.

As Ray suggested about "likes_specifically" at [Comment #9](#), Issue 489, a (concept of)Link can be treated a kind of Relation.

Also, the characterization of Relation such as;

```
:isMarriedWith a rdf:Property;
    rdfs:domain :man;
    rdfs:range :woman.
```

is not a Relation, but a Assertion.

So, the relation between a Relation and a Link is not a set of tuples and one of those tuples, but a more syntactical difference, and the naming of Relation and Link is confusing.

The class hierarchy of Concept and that of Assertion should be more symmetrical to each other (i.e. similar).

It is strange that although Relation is characterized by the associations with Relation_Role and Link, Relation is not a subclass of Assertion.

----- Additional Comment #3 From [Kevin D. Keck](#) 2009-07-29 12:47 ET -----

(In reply to [comment #2](#))

> What I was originally thinking was as follows:

>

> For example, think about:

>

```
> :isAtStrifeWith a rdf:Property.
> :cat :isAtStrifeWith :dog.
> :Tom :isAtStrifeWith :Fido.
> :Tom a :cat.
> :Fido a :dog.
```

>

> In this case, the concept represented by ":cat :isAtStrifeWith :dog." can be registered as a Link.

I suppose it can be, but your example is not plausibly correct RDF. If what you are trying to say is that :isAtStrifeWith has domain cats and range dogs, then those would be assertions of rdfs:domain and rdfs:range, with :isAtStrifeWith being the subject, as you've done below. If what you mean to say is that all cats are at strife with some dog(s), then the way to say that in OWL would be:

```
:cat rdfs:subClassOf [a owl:Restriction ;
    owl:onProperty :isAtStrifeWith ;
    owl:someValuesFrom :dog ].
```

If what you mean to say is that cats may only be at strife with dogs, then the way to say that would be:

```
:cat rdfs:subClassOf [a owl:Restriction ;
    owl:onProperty :isAtStrifeWith ;
    owl:allValuesFrom :dog ].
```

If you mean to say yet something else, then you may need to develop some additional vocabulary (beyond what is provided by OWL) in order to express it. What is being said by ":cat :isAtStrifeWith :dog ." is that literally :cat (the class/species) :isAtStrifeWith :dog (the class/species). You're free to assert that if you insist, and you might even suggest that it can be validly interpreted in some Darwinian sense, but I don't think that's really what you meant.

> At the same time, the concept represented by ":cat :isAtStrifeWith :dog." can > be registered as also a Relation, since ":Tom :isAtStrifeWith :Fido." can be > understood a member (or instance) of ":cat :isAtStrifeWith :dog."

The RDF ":cat :isAtStrifeWith :dog ." does not represent a concept, it expresses an assertion (albeit a dubious one). :isAtStrifeWith can be taken as an identifier either of a Relation (with implicit roles of subject and object) or of a Relation_Role (of an implicit Relation).

> But, now, my understanding of Figure 8-1 is a little bit different.
> The distinction between Concept and Assertion is determined more syntactically.

It generally can be determined syntactically in OWL, but that may not be true in other cases. In particular, there is no requirement that a Concept System be expressed formally at all.

> A Concept is a sign (atomic name) that denote a concept.

No, the Concept is what is denoted, not the sign itself. There may be more than one sign denoting any given Concept, and there may (sometimes) be no sign.

> An Assertion is a sentence (axioms, constraints) that characterize a concept or > concepts and a form that can have a truth value (true or false).

Yes.

> So, ":Tom :isAtStrifeWith :Fido.", ":cat :isAtStrifeWith :dog." > and "isAtStrifeWith a rdf:Property." are all members of Assertion and the first > one or two are members of Link,

They are all Links. The third is equivalent (by definition) to ":isAtStrifeWith rdf:type rdf:Property ."

> The concept characterized by these sentences and denoted by > ":isAtStrifeWith" is a Relation.

I wouldn't take the first as characterizing :isAtStrifeWith--they are characterizing :Tom and :cat.

> As Ray suggested about "likes_specifically" at [Comment #9](#), Issue 489, a > (concept of)Link can be treated a kind of Relation.

> Also, the characterization of Relation such as;

```
> :isMarriedWith a rdf:Property;
>     rdfs:domain :man;
>     rdfs:range :woman.
> is not a Relation, but a Assertion.
```

Actually I would register this as three Assertions, but you could just as well register it all together as one.

> So, the relation between a Relation and a Link is not a set of tuples and one > of those tuples, but a more syntactical difference, and the naming of Relation > and Link is confusing.

>

> The class hierarchy of Concept and that of Assertion should be more > symmetrical to each other (i.e. similar).

Why?

> It is strange that although Relation is characterized by the associations with > Relation_Role and Link, Relation is not a subclass of Assertion.

It takes some getting used to I guess. But again I would not say that the

association with Link provides characterization of the Relation.

----- Additional Comment #4 From [OKABE, Masao](#) 2009-09-04 01:31 ET -----

(In reply to [comment #3](#))

> (In reply to [comment #2](#))

> > What I was originally thinking was as follows:

> >

> > For example, think about:

> >

> > :isAtStrifeWith a rdf:Property.

> > :cat :isAtStrifeWith :dog.

> > :Tom :isAtStrifeWith :Fido.

> > :Tom a :cat.

> > :Fido a :dog.

> >

> > In this case, the concept represented by ":cat :isAtStrifeWith :dog." can be

> > registered as a Link.

> > I suppose it can be, but your example is not plausibly correct RDF.

I agree that this is not plausibly correct (good?) RDF.

The RDF is a correct RFD in the sense that nothing conflicts the RDF specifications, I hope.

What I would like to say is:

Generally speaking, the cat is at strife with the dog.

Tom is at strife with Fido since Tom is a cat and Fido is a dog.

In a daily small talk, we sometimes say this kind of things.

If this is expressed in RDF, we get something like the RDF above.

The point is that the concept represented by ":cat :isAtStrifeWith :dog." can be both a relation (not "Relation" as a metaclass of MDR Partt3 Ed3, but "relation" as a general term) and a link (not "Link" as a metaclass of MDR Partt3 Ed3, but "link" as a general term).

> It generally can be determined syntactically in OWL, but that may not be true in

> other cases. In particular, there is no requirement that a Concept System be expressed formally at all.

I agree. That is why we need more clear distinction between a relation and a link that matches our ordinary understanding.

> > A Concept is a sign (atomic name) that denote a concept.

> > No, the Concept is what is denoted, not the sign itself. There may be more than

> > one sign denoting any given Concept, and there may (sometimes) be no sign.

I see. This is a clear answer to my question on #3, #11, #16 of Issue 489.

Now, the concept denoted by Man (and) (exist)hasChild.Person can be an instance of Concept even though it does not have a specific name for that (i.e. Father). Am I correct?

Then, I think that this concept is better to have a relation to the concepts "Man", "hasChild" and "Person" in MDR Part3 Ed3 metamodels.

> They are all Links. The third is equivalent (by definition) to

> ":isAtStrifeWith rdf:type rdf:Property ."

I see. Now, I understand any triple of RDF is a Link. In some sense, this is fine. But, this does not match well our ordinary understanding because cat (Tom) (i.e. :Tom a :cat.) is also a Link although this link does not look a member of some relation unless "RDF triple" is registered as a Relation.

> > So, the relation between a Relation and a Link is not a set of tuples and one

> > of those tuples, but a more syntactical difference, and the naming of Relation

> > and Link is confusing.

> > The class hierarchy of Concept and that of Assertion should be more

> > symmetrical to each other (i.e. similar).

> > Why?

The class structure should match what we intuitively understand based on the class names. We (or at least, we WG2 people and OMG people?) usually understand

that a relation is a set of tuples and a link is one of those tuples. But, the relation between Relation and Link of MDR Part3 Ed3 does not match well this our usual understanding.

If we say "Relation", there are two possibilities in the context of MDR Part3 Ed3. One is a class whose instance represents a relation itself. The other is a class whose instance represents a definition (characterization, or axiomatization) of a relation.

Similarly, "Link" has two possibilities, a class whose instance represents a link or a class that represent a definition of a link.

"Relation" seems the former, on the other hand, "Link" seems the latter.

They are something like, say, Class is a subclass of Concept and Instance is a subclass of Assertion, and look strange and confusing.

I think both should be former, i.e. Relation is a class whose instance represent a relation itself and Link is a class whose instance represent a link, although we need a discussion and a consensus on whether we really need to distinguish a relation and a link since we tentatively do not distinguish a general concept and an individual concept.

After we develop a class hierarchy of Concept, including possibly Relation and Link, then we can develop a class hierarchy of Assertion, which may possibly have "Relation characterization" and "Link definition". In this sense, a class hierarchy of Concept and a class hierarchy of Assertion become similar.

----- Additional Comment #5 From [OKABE, Masao](#) 2009-09-08 23:30 ET -----

The other confusing point is that although MDR Part3 Ed3 introduces Assertion (i.e. sentence and/or axiom), some of the sentences are represented only by associations (a graph) of classes and not use Assertion.

There are two examples: Relation and Link

The definition (assertion) of Relation is represented a graph among Relation, Relation_Role and Concept and is not a Assertion.

The definition (assertion) of Link is represented a graph among Link, Link_End, Concept, Relation_Role and Relation and is not necessarily an instance of subclass of Assertion.

Issue 483 - CD2 Ballot Comment WG2 N1284 Seq 159 Characteristic

Issue#: 483	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution:	Assigned To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel		Target Milestone: ---	
URL:			
Summary: CD2 Ballot Comment WG2 N1284 Seq 159 Characteristic			
Status Whiteboard:			
Opened: 2009-06-29 18:46 ET			
Description:			

Japanese Ballot Comment JP 15 on 8.1.2.1 states:
Concept needs to have an association, preferably an aggregation with Characteristic because Concept is a class which represents a concept, which is created by a unique combination of characteristic, according to ISO 1087-1.

----- Additional Comment #1 From [Ray Gates](#) 2009-06-29 18:49 ET -----

The Jeju Editing/BRM meeting discussed this comment, and it was suggested that possibly what the model currently calls Characteristic should be Characteristic Type, in which case the proposed association would no longer be appropriate. We need review and clarify which is really intended in the model.

----- Additional Comment #2 From [Ray Gates](#) 2009-06-29 22:16 ET -----

See also the discussion in Issue 472.

----- Additional Comment [#3](#) From [Ray Gates](#) 2009-08-01 17:38 ET -----

*** [Bug 462](#) has been marked as a duplicate of this bug. ***

Issue 484 - CD2 Ballot Comment WG2 N1284 Seq 177 Individual vs General Concepts

Issue#: 484	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution: Assigned	To: gatesray@rogers.com	Reported	QA
Component: 05. metamodel	By: gatesray@rogers.com	Target Milestone: ---	Contact: gatesray@rogers.com

URL:

Summary: CD2 Ballot Comment WG2 N1284 Seq 177 Individual vs General Concepts

Status Whiteboard:

Opened: 2009-06-29 18:51 ET

Description:

Japanese Ballot Comment JP 22 on 8.1.2.6 states:
The meaning of Concept at "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1) " is unclear. It needs to clearly specify whether this means individual concept or general concept. So, Ed3 is better to introduce Individual_Concept and General_Concept, in addition to just Concept.

----- Additional Comment [#1](#) From [Ray Gates](#) 2009-06-29 18:55 ET -----

The Jeju Editing/BRM meeting discussed this, and proposed that the distinction between a General Concept (e.g. Planet) and an Individual Concept (e.g. Saturn) may depend on a point of view. The following example was given: The Concept 'Dog' may be considered a general concept, whose instance are individual dogs. However, when the general concept is 'Species', 'Dog' as a particular species would then be an individual concept. This was presented as an argument for not accepting the proposal.

----- Additional Comment [#2](#) From [Dan Gillman](#) 2009-06-30 09:56 ET -----

In 1087-1, anything perceivable or conceivable is an object. Objects make up the extensions of concepts, and each concept is itself an object - because it is a conceivable thing. The concept "species" is a general concept, because its extension contains more than one object, and those objects are things like "cat", "dog", "lion", etc. Just to be clear, to allay any quibbles, each of those terms really refers to several species, but we mean house cats, domesticated dogs (not dingos, not wolves, etc), and African lions (not mountain lions, etc). Each term is a label for a conceivable object when considering the extension of "species". But, each object is also a concept, and as concepts, each one is general, because each one has more than one (perceivable) object in its extension. The extension of the concept "dog" contains each dog in the world, and there is more than one.

The change in perspective here is between considering a concept as such or as an object. A point of confusion is on the fact that an object may have an individual concept associated with it. Using this to claim that "dog" in the extension of "species" is therefore an individual concept is a misapplication of theory and overly complicates the discussion. It is a misapplication of theory because the extension of a concept is a set of objects, not concepts. Moreover, as stated in the first sentence of this paragraph, the perspective switch is between a concept as such and as an object. The over complication in the discussion is due to adding the requirement that an object also be considered as an individual concept. This adds nothing to the understandings here:

- 1) "dog" is an object in the extension of "species"
- 2) "dog" is a general concept.

----- Additional Comment [#3](#) From [OKABE, Masao](#) 2009-07-09 04:13 ET -----

A General Concept (e.g. Planet) and an Individual Concept (e.g. Saturn) does not necessarily depend on a point of view.

For example, Saturn (more precisely saying, a star that is denoted by a proper noun "Saturn") cannot be a General Concept from any point of view.

Any objections?

(In reply to [comment #1](#))

> The Jeju Editing/BRM meeting discussed this, and proposed that the distinction
> between a General Concept (e.g. Planet) and an Individual Concept (e.g.
> Saturn) may depend on a point of view. The following example was given:
> The Concept 'Dog' may be considered a general concept, whose instance are
> individual dogs. However, when the general concept is 'Species', 'Dog' as a
> particular species would then be an individual concept. This was presented
as
> an argument for not accepting the proposal.

----- *Additional Comment #4* From [OKABE, Masao](#) 2009-07-09 04:13 ET -----

A General Concept (e.g. Planet) and an Individual Concept (e.g. Saturn) does not necessarily depend on a point of view.

For example, Saturn (more precisely saying, a star that is denoted by a proper noun "Saturn") cannot be a General Concept from any point of view.

Any objections?

(In reply to [comment #1](#))

> The Jeju Editing/BRM meeting discussed this, and proposed that the distinction
> between a General Concept (e.g. Planet) and an Individual Concept (e.g.
> Saturn) may depend on a point of view. The following example was given:
> The Concept 'Dog' may be considered a general concept, whose instance are
> individual dogs. However, when the general concept is 'Species', 'Dog' as a
> particular species would then be an individual concept. This was presented
as
> an argument for not accepting the proposal.

----- *Additional Comment #5* From [OKABE, Masao](#) 2009-07-09 04:36 ET -----

JP22 originally came from the unclarity of the description of "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1)" at the first line on page 74 (8.1.2.6).

For example, consider "Tom is_a_father_of Susie."

In my understanding, this sentence itself is a Link.

Tom and Susie are Link_Ends.

The associated Concepts are man and child (or just both human).

Am I correct?

If so, the problem is that the above description cannot eliminate Tom and Susie from the associated Concepts since Tom and Susie are individual concepts and so Concepts.

JPN22 requests that the description of "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1)" should be revised so that Tom and Susie are clearly eliminated from the Concepts associated with link "Tom is_a_father_of Susie."

(In reply to [comment #0](#))

> Japanese Ballot Comment JP 22 on 8.1.2.6 states:
> The meaning of Concept at "Link_End (8.1.4.1) with two or more Concepts
> (8.1.2.1)" is unclear. It needs to clearly specify whether this means
> individual concept or general concept. So, Ed3 is better to introduce
> Individual_Concept and General_Concept, in addition to just Concept.

----- *Additional Comment #6* From [Dan Gillman](#) 2009-07-09 15:43 ET -----

I think the idea that point of view is important for determining whether a concept is general or individual stems from the continued confusion between a

designation and a concept. Given a concept, there is one point of view - that of the concept. It is either general - with no restriction on the size of the extension - or it is individual - with the extension having one object. There is, however, a point of view with respect to a signifier, for it may be the designation of many concepts. Thus, the name Saturn could designate an individual or a general concept. It designates an individual concept - the planet which is 6th from the Sun. It also designates a general concept, for there is an automobile type called Saturn in the US, where each car of the type is also called Saturn, i.e., "What's that car? Oh, it's a Saturn.". In this case, Saturn has a large extension if it refers to the concept of the automobiles of that type.

----- Additional Comment #7 From [Ray Gates](#) 2009-07-09 20:11 ET -----

My understanding of the intent of this model is different.
I believe the following is intended:

- 'Is Father Of' would be the designation of an instance of Relation
- 'Father' would be the designation of an instance of Relation_Role that is one of two roles in the relation_role_set
- 'Child' would be the designation of another instance of Relation_Role, that is the other role in the relation_role_set associate with 'Is Father Of'
- Since Relation and Relation_Role are sub-types of Concept, 'Is Father Of', 'Father' and 'Child' are all generic concepts.
- "Tom is_a_father_of Susie" is an instance of a link
- Tom and Susie are Link_Ends and also individual concepts.

As I say, that is my understanding of the intent of the model. Dan's comments around the confusion between individual concepts, and objects which are instances of a general concept suggest that the model may be suffering from that confusion. If we need to distinguish individual concepts from instances of general concepts, I don't think the model does so. I would welcome comment from those individuals who came up with this model in the first place. (Kevin et al.)

(In reply to [comment #5](#))

- > JP22 originally came from the unclarity of the description of "Link_End
- > (8.1.4.1) with two or more Concepts (8.1.2.1)" at the first line on page 74
- > (8.1.2.6).
- > For example, consider "Tom is_a_father_of Susie."
- > In my understanding, this sentence itself is a Link.
- > Tom and Susie are Link_Ends.
- > The associated Concepts are man and child (or just both human).
- > Am I correct?
- > If so, the problem is that the above description cannot eliminate Tom and Susie
- > from the associated Concepts since Tom and Susie are individual concepts and so
- > Concepts.
- > JPN22 requests that the description of "Link_End (8.1.4.1) with two or more
- > Concepts (8.1.2.1)" should be revised so that Tom and Susie are clearly
- > eliminated from the Concepts associated with link "Tom is_a_father_of Susie."
- > (In reply to [comment #0](#))
- > > Japanese Ballot Comment JP 22 on 8.1.2.6 states:
- > > The meaning of Concept at "Link_End (8.1.4.1) with two or more Concepts
- > > (8.1.2.1)" is unclear. It needs to clearly specify whether this means
- > > individual concept or general concept. So, Ed3 is better to introduce
- > > Individual_Concept and General_Concept, in addition to just Concept.

----- Additional Comment #8 From [OKABE, Masao](#) 2009-07-09 22:28 ET -----

(In reply to [comment #6](#))

I agree that , the name Saturn could designate an individual (a specific star) or a general concept (type of car).
But, what I am saying is about the concept designated by a *** proper *** name "Saturn", i.e. a specific star and not a type of car.

This concept (i.e. a specific star) cannot be a general concept on any point of view (if we do not consider its snapshot in (by?) time).

Note: Treatment of time should be discussed as a different and difficult issue.

----- Additional Comment #9 From [OKABE, Masao](#) 2009-07-09 22:28 ET -----

(In reply to [comment #6](#))

I agree that , the name Saturn could designate an individual (a specific star) or a general concept (type of car).
But, what I am saying is about the concept designated by a *** proper *** name "Saturn", i.e. a specific star and not a type of car.

This concept (i.e. a specific star) cannot be a general concept on any point of view (if we do not consider its snapshot in (by?) time).

Note: Treatment of time should be discussed as a different and difficult issue.

----- Additional Comment #10 From [Ray Gates](#) 2009-07-10 21:22 ET -----

As I have commented on issue 489, I am thinking that since Link is an instance of a Relation, it should be associated with instances of Concept, not with Concept. In effect, Concept and Relation are at an Upper Level and Link and the Link End (concept instance) are at a Lower Level. I think the model should be changed to reflect this.

----- Additional Comment #11 From [OKABE, Masao](#) 2009-07-10 22:14 ET -----

(In reply to [comment #10](#))

AS I stated at #5, JP22 originally came from the unclearness of the description of "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1)" at the first line on page 74 (8.1.2.6).

For example, consider "Tom is_a_father_of Susie."
In my understanding, this sentence itself is a Link.
Tom and Susie are Link_Ends.
There are two choices for the associated Concepts.
One is man and child (or just both human) as general concepts.
The other is Tom and Susie as individual concepts.

Whic is correct?

If the correct one is the second one, I think we need to discuss Ray's point.
But, before that, could you reply my question?

> As I have commented on issue 489, I am thinking that since Link is an instance
> of a Relation, it should be associated with instances of Concept, not with
> Concept. In effect, Concept and Relation are at an Upper Level and Link and
> the Link End (concept instance) are at a Lower Level. I think the model
> should be changed to reflect this.

----- Additional Comment #12 From [Ray Gates](#) 2009-07-11 11:26 ET -----

(In reply to [comment #11](#))

> (In reply to [comment #10](#))

> AS I stated at #5, JP22 originally came from the unclearness of the
> description of "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1)" at
> the

> first line on page 74 (8.1.2.6).

> For example, consider "Tom is_a_father_of Susie."

> In my understanding, this sentence itself is a Link.

> Tom and Susie are Link_Ends.

> There are two choices for the associated Concepts.

> One is man and child (or just both human) as general concepts.

> The other is Tom and Susie as individual concepts.

> Whic is correct?

> If the correct one is the second one, I think we need to discuss Ray's point.

> But, before that, could you reply my question?

My understanding of the intent of the current model is that the Link_Ends are intended to identify Tom and Susie as individual concepts, but I now think that is wrong, and that these should be the individual objects that are instances of the generic concepts. I need the people who developed this model to explain their own thinking.

----- Additional Comment #13 From [OKABE, Masao](#) 2009-07-15 01:20 ET -----

(In reply to [comment #12](#))

I see. I agree with you for the first half part.
I misunderstood that the (one role of) Link_End and +end of Link_End Association Class (i.e. the associated Concept) were different. But, I understand that they are the same.

For the last half part, are you saying that an individual concept is different from and cannot be an instance of a general concept?

> (In reply to [comment #11](#))
> > (In reply to [comment #10](#))
> > AS I stated at #5, JP22 originally came from the unclarity of the
> > description of "Link_End (8.1.4.1) with two or more Concepts (8.1.2.1)" at
> > the
> > first line on page 74 (8.1.2.6).
> > For example, consider "Tom is_a_father_of Susie."
> > In my understanding, this sentence itself is a Link.
> > Tom and Susie are Link_Ends.
> > There are two choices for the associated Concepts.
> > One is man and child (or just both human) as general concepts.
> > The other is Tom and Susie as individual concepts.
> > Which is correct?
> > If the correct one is the second one, I think we need to discuss Ray's point.
> > But, before that, could you reply my question?
> My understanding of the intent of the current model is that the Link_Ends are
> intended to identify Tom and Susie as individual concepts, but I now think
> that is wrong, and that these should be the individual objects that are
> instances of the generic concepts. I need the people who developed this
model
> to explain their own thinking.

----- Additional Comment #14 From [Ray Gates](#) 2009-07-15 21:23 ET -----

(In reply to [comment #13](#))

> (In reply to [comment #12](#))

>> For the last half part, are you saying that an individual concept is different

> from and cannot be an instance of a general concept?

> > (In reply to [comment #11](#))

> > > (In reply to [comment #10](#))

I am saying the concept of an object is not the same as the object itself.
However, we are just modelling them, so we have to decide whether or not they
need to be separate in the model. Right now they are not. It really depends
what information we need to record about them, including associations.

----- Additional Comment #15 From [Kevin D. Keck](#) 2009-07-16 00:20 ET -----

(In reply to [comment #10](#))

> As I have commented on issue 489, I am thinking that since Link is an instance
> of a Relation, it should be associated with instances of Concept, not with
> Concept. In effect, Concept and Relation are at an Upper Level and Link and
> the Link End (concept instance) are at a Lower Level. I think the model
> should be changed to reflect this.

No, a Link is not an instance of a Relation, it is a member of a Relation. We do not want to cross levels
—these are all things that are part of a Concept System, all at the same level.

An instance of Link is associated with two or more instances of Link_End, each of which is associated
with one instance of Concept and one or more instances of Relation_Role.

----- Additional Comment #16 From [Kevin D. Keck](#) 2009-07-16 00:29 ET -----

(In reply to [comment #15](#))

> (In reply to [comment #10](#))

> > As I have commented on issue 489, I am thinking that since Link is an instance
> > of a Relation, it should be associated with instances of Concept, not with
> > Concept. In effect, Concept and Relation are at an Upper Level and Link and
> > the Link End (concept instance) are at a Lower Level. I think the model

> > should be changed to reflect this.
 >
 > No, a Link is not an instance of a Relation, it is a member of a Relation. We do not want to cross
 > levels—these are all things that are part of a Concept System, all at the same level.
 >
 > An instance of Link is associated with two or more instances of Link_End, each of which is associated
 > with one instance of Concept and one or more instances of Relation_Role.

Actually that's not quite an adequate description, because Relation_Roles are Concepts. Allow me to try again:

An instance of Link has two or more Link_End instances attached to it. Each of those Link_Ends is an association between the Link and exactly one "end", which must be an instance of Concept, and also has one or more associated "end_role"s, each of which must be an instance of Relation_Role.

----- Additional Comment #17 From [Kevin D. Keck](#) 2009-07-16 00:57 ET -----

(In reply to [comment #5](#))
 > JP22 originally came from the unclarity of the description of "Link_End
 > (8.1.4.1) with two or more Concepts (8.1.2.1)" at the first line on page 74
 > (8.1.2.6).
 > For example, consider "Tom is_a_father_of Susie."
 > In my understanding, this sentence itself is a Link.
 > Tom and Susie are Link_Ends.
 > The associated Concepts are man and child (or just both human).
 >
 > Am I correct?

No. The sentence itself is a Link, yes. Link_End is an association class; the Link_Ends are each links (in the UML terminology) between that instance of Link and an instance of Concept which is the "end" of that Link_End. Each of those Link_Ends also is linked (in the UML terminology) to one or more instances of Relation_Role by the link_end_role association.

The roles of the Relation are not to be confused with the ranges of those roles (if specified). If the roles are designated as "father" and "child", then the range of the "father" role might be specified to be the Concept "Male", and the range of the "child" role might be specified to be the Concept "Person", but neither "Male" nor "Person" is referred to directly by the Link "Tom is_a_father_of Susie". The Link has two Link_Ends: one with an end which is the instance of Concept designated as "Tom", with one end_role (the instance of Relation_Role designated as "father"); the other Link_End has an end which is the instance of Concept designated as "Susie", also with one end_role (in this case, the instance of Relation_Role designated as "child").

----- Additional Comment #18 From [Kevin D. Keck](#) 2009-07-16 01:46 ET -----

In CLIF there is no segregation between classes, individuals, etc.--there's just names which have referents, and no restriction on how many ways those names can be used. The following is a perfectly fine CLIF text:

```
(species dog)
(dog Fido)
(species cat)
(cat Tom)
```

How should such a text be registered?

We have roughly the same issue not only in OWL Full, but also in OWL 2 DL:
<http://www.w3.org/TR/2009/WD-owl2-new-features-20090611/#F12: Punning>

In light of this reality, I think that trying to impose a requirement that all Concepts be specified to be either General_Concepts or Individual_Concepts is just not practical.

----- Additional Comment #19 From [Ray Gates](#) 2009-07-16 21:24 ET -----

(In reply to [comment #18](#))
 > In CLIF there is no segregation between classes, individuals, etc.--there's
 > just names which have
 > referents, and no restriction on how many ways those names can be used. The
 > following is a perfectly
 > fine CLIF text:
 > (species dog)
 > (dog Fido)
 > (species cat)

> (cat Tom)
 > How should such a text be registered?
 > We have roughly the same issue not only in OWL Full, but also in OWL 2 DL:
 > <http://www.w3.org/TR/2009/WD-owl2-new-features-20090611/#F12: Punning>
 > In light of this reality, I think that trying to impose a requirement that
 all Concepts be specified to be
 > either General_Concepts or Individual_Concepts is just not practical.

Thank you. The example helps explain why you want to treat everything at one level. I'm still not convinced it is a good thing to do though.

----- Additional Comment #20 From [OKABE, Masao](#) 2009-07-17 00:15 ET -----

(In reply to [comment #17](#))

I see and agree.
 I understand that this is the same as what Ray explained at [Comment 12](#).
 I was confused understanding association class "Link_End".

> (In reply to [comment #5](#))
 > > JP22 originally came from the unclearness of the description of "Link_End
 > > (8.1.4.1) with two or more Concepts (8.1.2.1)" at the first line on page 74
 > > (8.1.2.6).
 > > For example, consider "Tom is_a_father_of Susie."
 > > In my understanding, this sentence itself is a Link.
 > > Tom and Susie are Link_Ends.
 > > The associated Concepts are man and child (or just both human).
 > >
 > > Am I correct?
 > No. The sentence itself is a Link, yes. Link_End is an association class;
 the Link_Ends are each links (in
 > the UML terminology) between that instance of Link and an instance of Concept
 which is the "end" of
 > that Link_End. Each of those Link_Ends also is linked (in the UML
 terminology) to one or more instances
 > of Relation_Role by the link_end_role association.
 > The roles of the Relation are not be confused with the ranges of those roles
 (if specified). If the roles
 > are designated as "father" and "child", then the range of the "father" role
 might be specified to be the
 > Concept "Male", and the range of the "child" role might be specified to be
 the Concept "Person", but
 > neither "Male" nor "Person" is referred to directly by the Link "Tom
 is_a_father_of Susie". The Link has
 > two Link_Ends: one with an end which is the instance of Concept designated
 as "Tom", with one
 > end_role (the instance of Relation_Role designated as "father"); the other
 Link_End has an end which is
 > the instance of Concept designated as "Susie", also with one end_role (in
 this case, the instance of
 > Relation_Role designated as "child").

----- Additional Comment #21 From [OKABE, Masao](#) 2009-07-23 08:18 ET -----

(In reply to [comment #14](#))

I agree.
 This is very similar to what I would try to say at WG2N1267.
 In ISO 1087-1, an object(3.1.1) in the real world and its concept in our mind
 (3.2.1) are explicitly distinguished and a sign (designation, 3.4.1) represents
 an concept and not an object.
 But in the usual framework of OWL, CL etc., an object in the real world and its
 concept in our mind are not explicitly distinguished and a sign represent an
 objects, a set of objects etc. in the real world.
 I think it is better for 11179-3 Ed3 to use the more widely-used and usual
 framework, rather than the one of ISO 1087. It is not clear whether the
 underlying framework of 11179-3 Ed3 is ISO 1087 or not, since it borrows the
 terms from ISO 1087-1, "concept", "concept system" and "characteristic (or
 characteristic type)" only.

> (In reply to [comment #13](#))
 > > (In reply to [comment #12](#))
 > >> For the last half part, are you saying that an individual concept is
 > different
 > > from and cannot be an instance of a general concept?

> > > (In reply to [comment #11](#))
 > > > (In reply to [comment #10](#))
 > I am saying the concept of an object is not the same as the object itself.
 > However, we are just modelling them, so we have to decide whether or not they
 > need to be separate in the model. Right now they are not. It really depends
 > what information we need to record about them, including associations.

----- Additional Comment #22 From [OKABE, Masao](#) 2009-07-23 08:20 ET -----

(In reply to [comment #18](#))

CLIF is type free but is still first-order.
 So, in different interpretations, "dog" can be interpreted as a class or an individual, but given an interpretation, "dog" is interpreted either a class or an individual depending on the interpretation.
 This is different from the multi metalevel facility of OWL 2 or Full.

> In CLIF there is no segregation between classes, individuals, etc.--there's just names which have
 > referents, and no restriction on how many ways those names can be used. The following is a perfectly
 > fine CLIF text:
 > (species dog)
 > (dog Fido)
 > (species cat)
 > (cat Tom)
 > How should such a text be registered?
 > We have roughly the same issue not only in OWL Full, but also in OWL 2 DL:
 > <http://www.w3.org/TR/2009/WD-owl2-new-features-20090611/#F12: Punning>
 > In light of this reality, I think that trying to impose a requirement that all Concepts be specified to be
 > either General_Concepts or Individual_Concepts is just not practical.

----- Additional Comment #23 From [OKABE, Masao](#) 2009-07-23 08:21 ET -----

(In reply to [comment #18](#))

In my understanding, in this case, only Tom and Fido represent individual concepts and all the others represent general concept. Individual concept is concept that corresponds to only one object, independent on what metalevel we are on (if we ignore its snapshots in time) and general concept is concept that corresponds to two or more objects on at least some metalevel, although it is not clearly stated in ISO 1087.
 This comment is almost the same as [comment #8](#).
 In this understanding, it causes no practical problem to impose a requirement that any concept is either a general concept or an individual concept.

> In CLIF there is no segregation between classes, individuals, etc.--there's just names which have
 > referents, and no restriction on how many ways those names can be used. The following is a perfectly
 > fine CLIF text:
 > (species dog)
 > (dog Fido)
 > (species cat)
 > (cat Tom)
 > How should such a text be registered?
 > We have roughly the same issue not only in OWL Full, but also in OWL 2 DL:
 > <http://www.w3.org/TR/2009/WD-owl2-new-features-20090611/#F12: Punning>
 > In light of this reality, I think that trying to impose a requirement that all Concepts be specified to be
 > either General_Concepts or Individual_Concepts is just not practical.

Issue 485 - CD2 Ballot Comment WG2 N1284 Seq 191 Figure 10-1 DEC

Issue#: [485](#) Product: 11179-3_ED3
 OS/Version: other Status: ASSIGNED

Version: ED3
 Severity: normal

Platform: Other
 Priority: P3 normal

Resolution: Assigned
To: gatesray@rogers.com
Component: 05. metamodel
URL:
Summary: CD2 Ballot Comment WG2 N1284 Seq 191 Figure 10-1 DEC
Status Whiteboard:
Opened: 2009-06-29 18:58 ET
Description:

Reported
By: gatesray@rogers.com
Target Milestone: ---

QA
Contact: gatesray@rogers.com

US Ballot Comment US 54 on Figure 10-1 states:

A Data Element Concept (DEC) may be associated with many Conceptual Domains (CDs). For instance, the characteristic marital status may correspond to the sets of properties {single, married} or {single, married, separated, divorced, widowed}. These sets of properties are CDs.

Proposal:

A DEC may be associated with many CDs. For instance, the characteristic marital status may correspond to the sets of properties {single, married} or {single, married, separated, divorced, widowed}. These sets of properties are CDs.

Note: for a CD the value meanings are distinct.

----- *Additional Comment #1* From [Ray Gates](#) 2009-06-29 19:02 ET -----

At the Jeju Editing/BRM meeting, there was opposition to this proposal from Canada and the U.K., who argued that in the given example, it was not clear that the meaning of 'single' and 'married' in the two domains was equivalent. For example, would a divorced person be counted as 'single' or 'married', or not counted at all? If the set of properties is different, these are different DECs. Making this change would introduce an incompatibility with Edition 2.

----- *Additional Comment #2* From [Dan Gillman](#) 2009-06-30 11:19 ET -----

This comment came from me.

Of course, the meaning of single in the 2 examples is different. In the 5 property case, single means never married. In the 2 property case, single means not married. However, nowhere (in 1087-1 nor 704) can I find a requirement that if the set of properties changes, then the characteristic must change.

The definition of characteristic in 1087-1 states that it is an abstraction of a property of an object or of a set of objects. This does not say that a characteristic must be different if a property changes. The only change is there must be a different abstraction (whatever that means). In the language Frank and I have developed, a characteristic is a determinable and properties are determinants. The set of determinants does not define the determinable.

This argument is only from the perspective of a characteristic, however, if a DEC changes due to changes in a set of properties, then it must be the case that the DEC is changing because the characteristic changes. The object class does and must stay the same, because changes in a CD have no effect on the object class. Therefore, it suffices to argue from the perspective of characteristics.

From the real world perspective, the statistical community makes changes in the allowed values (really the value meanings) of variables all the time. The meaning of the characteristic doesn't change. What changes is just the way we measure it. This corresponds to how we partition the population, but the concept (determinable) upon which the division is based isn't changing.

So, from my business point of view, it does not make sense to relate a DEC to one and only CD. There are many times we need to related a DEC to more than one. It is not sufficient, either, to then tell me to make copies of a DEC each time I want to relate one to a new CD. This violates the reuse principle inherent to 11179 and the requirements of efficient semantics management. For that matter, it violates second normal form in databases.

Another choice for keeping the status quo is to include all possible value meanings in one CD. However, this doesn't allow me to manage partitions (a statistical requirement) of the object class separately. Well, one might say, why not create one complete CD and build the necessary partitions from that?

This solution is mandating that I must create an extra layer when I all I want to do is link the relevant CDs to the DEC.

Another objection is that the path to a data element from a DEC through a CD is broken. But, since a CD may be associated with many VDs, and a VD may be associated with many DEs, then uniqueness was never attainable anyway. The path from a DE to a VD to a CD is still unbroken and unique. Continuing the path from the CD to the DEC was not unique in edition 2. The path from a DE to a DEC is untouched. We always had to ensure that the path back to a CD in both directions led to the same CD, and this does not violate that in any way.

Finally, the change does not mandate a conformity violation in edition 2. Any edition 2 conforming implementation will still conform to this change. The reason is that requirements in this change are being relaxed.

I can find nothing that is violated by this proposal, especially any perceived incompatibility with edition 2 or inconsistencies with the terminology theory. It has the advantage of being consistent with practice in the statistical community.

----- Additional Comment #3 From [Ray Gates](#) 2009-07-09 20:38 ET -----

(In reply to [comment #2](#))

> Another objection is that the path to a data element from a DEC through a CD is broken. But, since a CD may be associated with many VDs, and a VD may be associated with many DEs, then uniqueness was never attainable anyway. The path from a DE to a VD to a CD is still unbroken and unique. Continuing the path from the CD to the DEC was not unique in edition 2. The path from a DE to a DEC is untouched. We always had to ensure that the path back to a CD in both directions led to the same CD, and this does not violate that in any way.

There is a unique path from DE to VD to CD. As long as we have text to say that this is how we determine the CD associated with a DE, and that the relationship from DE to DEC to CD is only valid if it leads to the same CD, then I would personally not object to relaxing the association as suggested. (However, that is an expert comment only, and does not necessarily represent my NB opinion. Also, in the role of editor, I don't need to have an opinion. I just follow the instructions of the group.)

Issue 488 - CD2 Ballot Comment WG2 N1284 Seq 198 DEC

Issue#: 488	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution: Assigned	To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		

URL:

Summary: CD2 Ballot Comment WG2 N1284 Seq 198 DEC

Status Whiteboard:

Opened: 2009-07-01 10:46 ET

Description:

US Ballot comment US 56 states:

"Object class" and "characteristic" should be mandatory elements of a DEC.
Proposal:

Make relations from OC to DEC and Ch to DEC mandatory and make appropriate changes to sub-clauses 10.21.3.1 and 10.3.2.3.

----- Additional Comment #1 From [Ray Gates](#) 2009-07-01 10:46 ET -----

Editor's response:

These were deliberately made optional in Edition 2, because not every user wants to have to specify them.

Recommend not accept.

Issue 489 - CD2 Ballot Comment WG2 N1284 Seq 48 Relation

Issue#: [489](#) **Product:** 11179-3_ED3 **Version:** ED3 **Platform:** Other
OS/Version: other **Status:** ASSIGNED **Severity:** normal **Priority:** P3 normal
Resolution: **Assigned** **Reported** **QA**
To: gatesray@rogers.com **By:** gatesray@rogers.com **Contact:** gatesray@rogers.com
Component: 05. metamodel **Target Milestone:** ---

URL:

Summary: CD2 Ballot Comment WG2 N1284 Seq 48 Relation

Status Whiteboard:

Opened: 2009-07-07 20:39 ET

Description:

Japanese Ballot Comment JP 06 (#048) states with regard to Relation:
 It needs to be clarified whether this relation is a relations only among
 general concepts or not.

----- *Additional Comment #1* From [Ray Gates](#) 2009-07-07 20:43 ET -----

The following is the initial response from the meeting in Jeju:

Add text to clarify that Concepts may be general or individual, and this can
 depend on perspective. (See discussion in Issue 484.) Reference to general
 and individual concepts should be restricted to Notes to avoid having to
 define them.

----- *Additional Comment #2* From [OKABE, Masao](#) 2009-07-09 05:44 ET -----

I agree that we want to define a Relation as (a class whose instance is) a set
 of tuples and a Link as (a class whose instance is) one of those tuples.

Think about Tom likes_specifically Susie. And suppose that
 this "likes_specifically" is valid only between Tom and Susie.

Even in this case, the new definition of "Relation"
 accept "likes_specifically" as its instance since Tom and Susie are
 (individual) concepts.

This is not the same as what we want to defines "relation" as.

----- *Additional Comment #3* From [OKABE, Masao](#) 2009-07-09 06:21 ET -----

I am now thinking that this (whole MDR Part3 Ed3) will traat things (concept
 systems and/or ontologies) very syntactically very similar to MFI Part3.
 That is, Concept is very similar to Ontology_Atomic_Construct of MFI Part3,
 Assertion is very similar to Ontology_Component of MFI Part3, and
 Concept_System is very similar to Ontology_Whole.

For exaple, let us think about "A man (a husband) is married with (a wife) a
 women".

We may understand that this is a simplified form of either UML class diagram or
 OWL definition of ObjectProperty with domain, range and its inverse property.

"A man (a husband) is married with (a wife) a women" is a Assertion and is not
 a Relation.

Just "is_married_with" is a Relation with "husband" and "wife" as
 Relation_Roles.

Am I correct?

Now, suppose that the social system changes completely and that a husband is

not necessarily a man and a wife is not necessarily a woman.

Then, even if the symbol "is_married_with" is not changed, its definition should be changed to "A person (a husband) is married with (a wife) a person".

In MFI Part3, "is_married_with" keeps a same instance of Ontology_Atomic_construct since MFI Part3 treats things syntactically.

How does MDR Part3 Ed3 treats new "is_married_with"?

I think that in MDR Part3 Ed3, new "is_married_with" should be a different instance from old "is_married_with" of class "Concept (Relation)" since MDR Part3 Ed3 uses ISO 1087 framework and that new one expresses a different concept of ISO 1087 from the one by the old one.

But, I am afraid that MDR Part3 Ed3 treats it same as MFI Part3.

At least, MDR Part3 Ed3 has to specify this clearly so that all the readers (users) can understand how new "is_married_with" should be treated. And if MDR Part3 Ed3 treats them syntactically same as MFI Part3, MDR Part3 Ed3 should not use the vocabulary from ISO 1087.

----- Additional Comment #4 From [Ray Gates](#) 2009-07-09 20:43 ET -----

I don't understand the last sentence.
(In reply to [comment #2](#))
> I agree that we want to define a Relation as (a class whose instance is) a set
> of tuples and a Link as (a class whose instance is) one of those tuples.
> Think about Tom likes_specifically Susie. And suppose that
> this "likes_specifically" is valid only between Tom and Susie.
> Even in this case, the new definition of "Relation"
> accept "likes_specifically" as its instance since Tom and Susie are
> (individual) concepts.
> This is not the same as what we want to defines "relation" as.

----- Additional Comment #5 From [Ray Gates](#) 2009-07-09 20:52 ET -----

(In reply to [comment #3](#))
I agree with most of what you say, except that I think some users may want to treat the new 'is married with' as the same as the old, while others may want to treat it as different. I don't think the standard should force one or the other. The distinction is presumably expressed in the definitions of the Relation and the Concepts. The issue is really one of version control. If I have new versions of the Relation_Roles Husband and Wife, must I have a new version of the Relation as well? Or I may choose simply to update the definitions without creating new versions, if I am only interested in current state and not history.

----- Additional Comment #6 From [OKABE, Masao](#) 2009-07-09 22:06 ET -----

(In reply to [comment #4](#))
> I don't understand the last sentence.
> > This is not the same as what we want to defines "relation" as.

We would like to define a set of tuples.
But, this relation is a tuple and not a set of tuples.
So, this relation should be not be a relation, but a link.

----- Additional Comment #7 From [OKABE, Masao](#) 2009-07-09 22:10 ET -----

Correction
> We would like to define a set of tuples.

=>

We would like to define a relation as a set of tuples.

----- Additional Comment #8 From [OKABE, Masao](#) 2009-07-09 22:12 ET -----

(In reply to [comment #6](#))

Correction:

> We would like to define a set of tuples.

=>

We would like to define a relation as a set of tuples.

^^^^^^^^^^^^^^

----- *Additional Comment #9 From [Ray Gates](#) 2009-07-09 22:24 ET* -----

A set can have only zero one or more members.

The relation is defined in terms of roles, which in turn are concepts.

If the roles are generic concepts, there will likely be multiple tuples in the set. If the roles are individual concepts, there may only be one tuple in the set. I don't see an issue here.

(In reply to [comment #6](#))

> (In reply to [comment #4](#))

> > I don't understand the last sentence.

> > > This is not the same as what we want to defines "relation" as.

> We would like to define a set of tuples.

> But, this relation is a tuple and not a set of tuples.

> So, this relation should be not be a relation, but a link.

----- *Additional Comment #10 From [OKABE, Masao](#) 2009-07-09 23:29 ET* -----

(In reply to [comment #9](#))

I would like to distinguish a set with one element and an element itself.

But, this is because I misunderstood the difference between a Relation and a Link.

Now, I understand that both (oncepts denoted by symbols that expresses) a relation and a link can be instances of Relation and bott a definition of a relation and a link can be instances of Assertion (for the later, Link, more specifically).

I withdraw this point. But, I still think we need more discussion on [comment #3](#) and #5.

----- *Additional Comment #11 From [OKABE, Masao](#) 2009-07-10 06:58 ET* -----

(In reply to [comment #5](#))

I agree that version control is an important issue. But, what I am saying here is not about version control.

Suppose that

- the definition of the concept denoted by 'is married with' has been updated as stated at #3,
- but, the same designation 'is married with' is used.
- everybody is interested in both the new version and the old version.
- each version is stored as a different instance in the repository.

Then, Assertion has two instances. One is "A man (a husband) is married with (a wife) a women" for the old version and the other is "A people (a husband) is married with (a wife) a people" for the new version. I think this is clear.

The question is whether Relation has two instances for old 'is married with' and new 'is married with' or just one instance for 'is married with'.

From the point of MFI Part3, Ontolgy_Atomic_Construct has only one instance named 'is married with' because Ontolgy_Atomic_Construct stores just symbols (designations inde3pendent of what concept it denotes) and the symbol 'is married with' has no change.

Originally, I though that in MDR Part3 Ed3, Relation has two different instances whose designations are the same (i.e. 'is married with') because they represent different relations although they have the same designation.

But, now, I am thinking that Concept (Relation) of MDR Part3 Ed3 is the same as Ontolgy_Atomic_Construct of MFI Part3.

Which is correct?

----- Additional Comment #12 From [Harold Solbrig](#) 2009-07-10 10:11 ET -----

(In reply to [comment #9](#))
 > A set can have only zero one or more members.
 > The relation is defined in terms of roles, which in turn are concepts.
 > If the roles are generic concepts, there will likely be multiple tuples in the
 > set. If the roles are individual concepts, there may only be one tuple in the
 > set. I don't see an issue here.
 >
 > (In reply to [comment #6](#))
 > > (In reply to [comment #4](#))
 > > > I don't understand the last sentence.
 > > > This is not the same as what we want to defines "relation" as.
 > > We would like to define a set of tuples.
 > > But, this relation is a tuple and not a set of tuples.
 > > So, this relation should be not be a relation, but a link.
 >
 >

Ray,

Can you provide an example of a "role as an individual concept"?

----- Additional Comment #13 From [Harold Solbrig](#) 2009-07-10 15:26 ET -----

(In reply to [comment #5](#))
 > (In reply to [comment #3](#))
 > I agree with most of what you say, except that I think some users may want to
 > treat the new 'is married with' as the same as the old, while others may want
 > to treat it as different. I don't think the standard should force one or the
 > other. The distinction is presumably expressed in the definitions of the
 > Relation and the Concepts. The issue is really one of version control. If I
 > have new versions of the Relation_Roles Husband and Wife, must I have a new
 > version of the Relation as well? Or I may choose simply to update the
 > definitions without creating new versions, if I am only interested in current
 > state and not history.

Some of this discussion boils down to an issue of identity. There are at least three possible interpretations of the identity of a relation:

- 1) A relation is a set of tuples - a relation is nothing more or less than the set of tuples that comprise it.
- 2) A relation is a unique concept *and* relation role set - if you change a role, you have a different relation. This doesn't prevent us from defining a relationship *between* two relations - as an example, we might define one "married" as symmetric, with a single "person" role and an arity of "2" (unless, I suppose, you live in Utah :-), and a second relation "married" with two roles - "man" and "wife".
- 3) (Ignoring "arity" as part of identity...) A relation is a unique concept this is the weakest form of identity, where we would be allowed to decide whether man/wife married is the same as person/person married.

I don't think that we should, or can, take a stand on which of these interpretations is correct. We simply have to take it on face value - as long as the relation is the *same* concept, it is the same thing.

For what it is worth, I think it is this is the same identity argument that is going on in political circles. Those who adhere to definition (2) want to name the symmetric role a "civil union".

----- Additional Comment #14 From [Ray Gates](#) 2009-07-10 21:03 ET -----

Harold,

I was specifically responding to Masao-san's example of Tom and Susie. However, if it makes sense to define a relation between individual concepts, then those concepts would play the roles defined by the relation. A different example might be: Saturn is the 6th planet from the Sun, where we specify the relation 'is the sixth planet from' and specify 'Saturn' and 'Sun' as individual concepts. The roles might be '6th planet' and 'star'. However, I am not suggesting this is a good way to do it. I would rather specify a relation between generic concepts and treat 'Saturn' and 'Sun' as instances.

So I think one question is whether it is useful to specify a concept system containing individual concepts, rather than generic concepts. Are there examples out there someone can point to.

The other thing I am questioning having thought more about the distinct Dan has made between the individual concept and the individual object, is that since Link is an instance of a Relation, it should be associated with instances of Concept, not with Concept. In effect, Concept and Relation are at an Upper Level and Link and the Link End (concept instance) are a Lower Level. I think the model should be changed to reflect this.

(In reply to [comment #12](#))
 > (In reply to [comment #9](#))
 > > A set can have only zero one or more members.
 > > The relation is defined in terms of roles, which in turn are concepts.
 > > If the roles are generic concepts, there will likely be multiple tuples in the
 > > set. If the roles are individual concepts, there may only be one tuple in the
 > > set. I don't see an issue here.
 > >
 > > (In reply to [comment #6](#))
 > > > (In reply to [comment #4](#))
 > > > > I don't understand the last sentence.
 > > > > This is not the same as what we want to defines "relation" as.
 > > > We would like to define a set of tuples.
 > > > But, this relation is a tuple and not a set of tuples.
 > > > So, this relation should be not be a relation, but a link.
 > >
 > >
 > Ray,
 > Can you provide an example of a "role as an individual concept"?

----- Additional Comment [#15](#) From [Ray Gates](#) 2009-07-10 21:05 ET -----

I think we need to allow users to support whichever option they need. We should not be enforcing either one or the other.
 (In reply to [comment #11](#))
 > (In reply to [comment #5](#))
 > I agree that version control is an important issue. But, what I am saying here
 > is not about version control.
 > Suppose that
 > - the definition of the concept denoted by 'is married with' has been updated
 > as stated at #3,
 > - but, the same designation 'is married with' is used.
 > - everybody is interested in both the new version and the old version.
 > - each version is stored as a different instance in the repository.
 > Then, Assertion has two instances. One is "A man (a husband) is married with
 (a
 > wife) a women" for the old version and the other is "A people (a husband) is
 > married with (a wife) a people" for the new version. I think this is clear.
 > The question is whether Relation has two instances for old 'is married with'
 > and new 'is married with' or just one instance for 'is married with'.
 > From the point of MFI Part3, Ontolgy_Atomic_Construct has only one instance
 > named 'is married with' because Ontolgy_Atomic_Construct stores just symbols
 > (designations inde3pendent of what concept it denotes) and the symbol 'is
 > married with' has no change.
 > Originally, I though that in MDR Part3 Ed3, Relation has two different
 > instances whose designations are the same (i.e. 'is married with') because
 > they represent different relations although they have the same designation.
 > But, now, I am thinking that Concept (Relation) of MDR Part3 Ed3 is the same
 as
 > Ontolgy_Atomic_Construct of MFI Part3.
 > Which is correct?

----- Additional Comment [#16](#) From [OKABE, Masao](#) 2009-07-10 21:43 ET -----

(In reply to [comment #15](#))

I think these two are very different.
 It should not be users' choice because resistries that take different options cannot interoperate each other semantically forever, I guess.

If MDR Part3 Ed3 takes a syntactical option like MFI Part3, at least class names such as "Concept" are confusing.

I would ask other people's understandings and opinions.

> I think we need to allow users to support whichever option they need. We
> should not be enforcing either one or the other.
> (In reply to [comment #11](#))

----- Additional Comment [#17](#) From [Denise Warzel](#) 2009-07-29 19:33 ET -----

(In reply to [comment #16](#))
> (In reply to [comment #15](#))

in our registry, where we capture 'associations' between two classes, the entire association, including the ends is a registered object, but the 'description' of the association "is married with" could be associated to a concept in a concept system that describes the meaning of 'is married with', independent of the ends. If the next version of the model has 'is married with' and may change to the associations (cardinality, names of the ends) it would be considered a new version of the association, linked to the same description ('is married with')

We wouldn't expect new association made with the 'is married with' concept, to create new version of 'is married with'.

Don't know if that helps.

----- Additional Comment [#18](#) From [OKABE, Masao](#) 2009-09-08 23:32 ET -----

Going back to the original Issue 489, I think both a relation among general concepts and a relation among individual concepts can be relations. Then, a relation among individual concepts is almost the same as a link. MDR Part3 Ed3 does not distinguish a general concept and an individual concept, but just have Concept. Similarly, just Relation, including a relation among general concepts and a relation among individual concepts, is enough and Link is not necessary.

Issue 490 - CD2 Ballot Comment WG2 N1284 Seq 162 Concept System

Issue#: 490	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: normal	Priority: P3 normal
Resolution:	Assigned To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		
URL:			
Summary: CD2 Ballot Comment WG2 N1284 Seq 162 Concept System			
Status Whiteboard:			
Opened: 2009-07-07 20:46 ET			
Description:			

Japanese Ballot Comment JP 17 (#162) states:
When we see "MaritalStatus" example at F.2.2 SKOS Example Thesaurus, MaritalStatus in SKOS/Turtle is an instance of Concept_System. Then, MaritalStatus in SKOS/RDF-XML also can be instances of Concept_System, although they are semantically equivalent. Concept_System should be independent of representation (notation), since a concept system is fairly conceptual and independent of representation. One of the characteristics of ISO 1087-1 is to distinguish "Concepts" (ISO 1087-1 3.2) and "Designations" (ISO 1087-1 3.4). If 11179-3 Ed3 adopt the framework of ISO 1087-1, 11179-3 Ed3 should also distinguish "Concepts" and "Designation". Concept_System of 11179-3 Ed3 is about "Designations" because it is dependent on representation, although a concept system of ISO 1087-1 is about "Concepts".

----- Additional Comment #1 From [Ray Gates](#) 2009-07-07 20:47 ET -----

Initial response from the Jeju meeting:

A concept system is intended to name and describe concepts and to do so it has to use designations and descriptions. Even ISO 1087 does the same.

----- Additional Comment #2 From [OKABE, Masao](#) 2009-07-09 04:57 ET -----

The problem is that MaritalStatus in SKOS/Turtle and MaritaleStatus in SKOS/RDF-XML can be two different instances of Concept_System although they represent the same concept sysytem in different syntaxes.

People usaully think that diffirent instances of Concept_System represents diferent concept systems.

If Concept_System accepts them, the class name "Concept_System" is very confusing and should be changed to "Terminology".

(In reply to [comment #1](#))

> Initial response from the Jeju meeting:

> A concept system is intended to name and describe concepts and to do so it has
> to use designations and descriptions. Even ISO 1087 does the same.

----- Additional Comment #3 From [Dan Gillman](#) 2009-07-09 16:05 ET -----

Just as there is a difference between a concept and its designations, there must be an equivalent difference between a concept system and its representations. Part of the representation of a concept system will include a designation for each concept.

Now, as several have already pointed out, it is impossible to record a concept system without representing it. We do the same with many types of concepts in 11179 already. This does not mean that every representation qualifies as a separate concept system. Every time we change a designation for one concept in a concept system of 10,000 concepts we are forced to change the concept system itself? First, combinatorially, this would creat a management nightmare. Second, it makes no sense.

Treating concept systems this way would force us to consider treating concepts in the same way, for a single concept is a concept system (by the definition of concept systems). However, we already expect that a concept may have many designations, and we don't treat each of these as separate concepts. The beauty of 1087-1 and 704 is that they treat concepts and designations separately. So, new concepts are not generated each time a concept is given a new designation. This corresponds to all of our notions on reuse in 11179 and 19763.

Therefore, even though we must represent a concept system in some way to record it, we need to have a way to account for all ways it is represented. We can't treat each representation as a separte concept system itself.

----- Additional Comment #4 From [Ray Gates](#) 2009-07-09 20:58 ET -----

(In reply to [comment #3](#))

Unless someone comes up with a concrete proposal in the next couple of weeks, we will have to defer this for future consideration. This seems to be a non-trivial issue to resolve.

----- Additional Comment #5 From [OKABE, Masao](#) 2009-07-09 21:58 ET -----

(In reply to [comment #3](#))

I basically agree with Dan, except that 19763-3 treats things syntactically, i.e. a ontology_atomic_construct is just a sign and not a concept.

I think that you agree that just MaritalStatus should be one instance of Concept_System, independent of in SKOS/Turtle and MaritaleStatus in SKOS/RDF-

XML.

One of the specific change proposals is to change the multiplicity of `concept_system_notation` (8.1.2.2.2.1) from 0..1 to 0..*.

This is the easiest way, although we need to check whether this causes new problems.

----- Additional Comment #6 From [Ray Gates](#) 2009-07-10 21:18 ET -----

(In reply to [comment #5](#))

> (In reply to [comment #3](#))

>

> I basically agree with Dan, except that 19763-3 treats things syntactically, i.e. a `ontology_atomic_construct` is just a sign and not a concept.

> I think that you agree that just `MaritalStatus` should be one instance of

> `Concept_System`, independent of in SKOS/Turtle and `MaritaleStatus` in SKOS/RDF-XML.

> One of the specific change proposals is to change the multiplicity of

> `concept_system_notation` (8.1.2.2.2.1) from 0..1 to 0..*.

> This is the easiest way, although we need to check whether this causes new problems.

One new problem it would cause is not knowing which notation is being used by specific assertions within the concept system. One of the reasons for removing the distinction between `Concept_System` and `Ontology` was to simplify the model, since the structures seemed to be largely duplications of each other. I think we would have a similar problem if we tried to separate `Concept_System_Representation` from `Concept_System`. The model allows Concepts to be included in more than one Concept System, so the Concepts themselves don't have to be duplicated. We can create a different `Concept_System` for each notation being used, but reuse the Concepts and Relations. Assertions would need to be specified individually in each notation. Links not tied to a specific Notation could probably be reused. I'm thinking allowed here.

----- Additional Comment #7 From [OKABE, Masao](#) 2009-07-15 00:13 ET -----

(In reply to [comment #6](#))

I agree.

Then, I would request that

1) The description of `Concept_System` (8.1.2.2.1) has to clearly states what the [comment #6](#) says, some in its normative part and the other in its note.

"`Concept_System` is a class which (an instance of which) represents a concept system" is not enough.

2) The name of `Concept_System` and `Concept` should be changed to `Concept_System_Representation` and `Concept_Representation`, or `Terminology` and `Designation` so that the names can properly represent what they are.

3) The `sameAs` relation in `Concept_System_Representation`, `Assertion` and `Concept_Representation` so that we can recognize the ones that represent the same semantics.

> (In reply to [comment #5](#))

> > (In reply to [comment #3](#))

> >

> > I basically agree with Dan, except that 19763-3 treats things syntactically,

> > i.e. a `ontology_atomic_construct` is just a sign and not a concept.

> > I think that you agree that just `MaritalStatus` should be one instance of

> > `Concept_System`, independent of in SKOS/Turtle and `MaritaleStatus` in SKOS/RDF-

> > XML.

> > One of the specific change proposals is to change the multiplicity of

> > `concept_system_notation` (8.1.2.2.2.1) from 0..1 to 0..*.

> > This is the easiest way, although we need to check whether this causes new problems.

> One new problem it would cause is not knowing which notation is being used by specific assertions within the concept system. One of the reasons for

> removing the distinction between `Concept_System` and `Ontology` was to simplify

> the model, since the structures seemed to be largely duplications of each

> other. I think we would have a similar problem if we tried to separate

> Concept_System_Representation from Concept_System. The model allows Concepts
> to be included in more than one Concept System, so the Concepts themselves
> don't have to be duplicated. We can create a different Concept_System for
> each notation being used, but reuse the Concepts and Relations. Assertions
> would need to be specified individually in each notation. Links not tied to
a
> specific Notation could probably be reused. I'm thinking allowed here.

----- Additional Comment [#8](#) From [Kevin D. Keck](#) 2009-07-16 00:06 ET -----

(In reply to [comment #7](#))

Because SKOS/Turtle and SKOS/RDF-XML are purely syntactic transformations of each other, I don't see why you should need to register both. I would agree that they are the same concept system, and that concept system should only be registered once, and it does not matter which notation is used to register it.

----- Additional Comment [#9](#) From [OKABE, Masao](#) 2009-07-16 23:02 ET -----

(In reply to [comment #8](#))

This is the same as what I understood originally.

The problem is the specifications of 8.1.2.2 Concept_System does not clearly exclude the cases such as MaritalStatus in SKOS/Turtle and MaritaleStatus in SKOS/RDF-XML are registered as two different instances of Concept_System although they represent the same concept system in different syntaxes. It needs to be clearly stated that only one representation per a concept system can be registered as an instance of Concept_System.

But, if we can create a different Concept_System for each notation being used (per a concept system) as Ray suggested [comment #6](#), I would request my [comment #7](#).

I think the basic problem is that it is not clearly stated whether we can register a different Concept_System for each notation being used per a concept system nor there is no consensus on it.

> (In reply to [comment #7](#))
> Because SKOS/Turtle and SKOS/RDF-XML are purely syntactic transformations of each other, I don't see
> why you should need to register both. I would agree that they are the same concept system, and that
> concept system should only be registered once, and it does not matter which notation is used to register
> it.

----- Additional Comment [#10](#) From [Ray Gates](#) 2009-07-18 15:18 ET -----

*** [bug 452](#) has been marked as a duplicate of this bug. ***

Issue 495 - CD2 Ballot Comment WG2 N1288 Seq 129 & 130 - cl 6.2.4.2 / 6.2.4.3

Issue#: 495	Product: 11179-3_ED3	Version: ED3	Platform: Other
OS/Version: other	Status: ASSIGNED	Severity: major technical	Priority: P3 normal
Resolution:	Assigned To: gatesray@rogers.com	Reported By: gatesray@rogers.com	QA Contact: gatesray@rogers.com
Component: 05. metamodel	Target Milestone: ---		
URL:			
Summary: CD2 Ballot Comment WG2 N1288 Seq 129 & 130 - cl 6.2.4.2 / 6.2.4.3			
Status Whiteboard:			
Opened: 2009-10-14 21:50 ET			

Description:

US Comments 32 and 33 ask for an explanation to be added as to why Definitions and Designations cannot be reused across multiple Designatable_Items.

The editor needs assistance with this, since he does not recall why this restriction was imposed. Anyone who recalls the reason is requested to post an explanation to this issue. The alternative would be to remove the restriction.

----- Additional Comment #1 From [Dan Gillman](#) 2009-11-13 11:23 ET -----

(In reply to [comment #0](#))

> US Comments 32 and 33 ask for an explanation to be added as to why
Definitions
> and Designations cannot be reused across multiple Designatable_Items.
> The editor needs assistance with this, since he does not recall why this
> restriction was imposed. Anyone who recalls the reason is requested to post
> an explanation to this issue. The alternative would be to remove the
> restriction.

I believe the definition of designation is the rationale for not reusing designations (US 33). However, the issue for definitions (US 32) is much different. A designation *IS* the association between a concept and a signifier that represents it.

In ISO 1087-1, the root word "represent" is used in both definitions for designation and definition. The use of the word "represent" is different in the 2 cases.

For designations, a signifier is used as a short hand for a concept. It is not meant to convey meaning, so a designation is not expected to convey meaning. For instance, the codes used on each node in NAICS (North American Industrial Classification System) do not convey meaning. But, they are designations for the concepts each node contains.

On the other hand, a definition conveys the full meaning of a concept. That is its purpose. It is the one way in which a person can convey a concept to another person. The restriction that a definition cannot be reused across designatable items is neither imposed by the definition nor is it necessary. Different designatable items can be defined the same way, and it does not violate anything to reuse a definition to achieve this.

Actions:	Home New Search <input type="text" value="Find"/> issue # <input type="text"/>	Reports My Requests Sanity check Log out gatesray@rogers.com
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Saved Searches:	My Issues MDR3 CD2 Ballot MDR3-All-Open MFI-Part-3 MFI-Part-5	