## Issue 588 – 55th SIG meeting

In the 55th joint meeting of the CIDOC CRM and SO/TC46/SC4/WG9; 48th FRBR/LRMoo SIG meeting, the SIG reviewed HW by PF presented on the .1 properties RDFS implementation.

Subtopics:

#### How/where to provide scope-notes for .1 properties

**Competing proposals**:

1. At the end (or near the end) of the main property’s scope note
2. Below the definition of the .1 property
3. At a new section “CIDOC-CRM Property of Property Declarations”
4. Add a section “Properties” that’s placed right below the scope-note of the property and right above the examples section.
5. Combine options (ii) and (iii), i.e., include the .1 property scope-note in the property definition, but also link to a separate section “CIDOC-CRM Property of Property Declarations”. Difficult to copy the text in multiple places

**Discussion points**:

For proposal (i): it would call for a different style guide for the scope-note of the .1 property, otherwise it would not be picked up automatically in the .1 properties RDF file.

For proposals (i) & (iv): Especially if there is more than one kind of .x property (like in CRMarchaeo), there should be an equivalent number of styles corresponding to the scope-notes of each type of .x property.

For proposal (iii): it is easier to automatically generate the RDF file for .1 properties.

For proposal (ii): the description of the .1 property is dependent upon and should in that sense appear close to that of the main property. Especially since the examples represent the .1 property as a continuation of the main property.

**Overall comments**:

* .1 properties should be redrafted making use of the scope-note writing guideline. They are systematically the most ill-drafted.
* At some point, we should revisit style guides and formulize the scope-notes even more, to ensure that the transitivity/reflexivity/symmetry statements are found in the same part of the scope notes. The same thing should apply to shortcuts and .1 properties. It relates to issue 494 -scope note writing guideline.

The SIG voted on option (iv) which was considered the most widely adopted.
**Outcome of the vote.**
In favor: 12 (8 in person, 4 online)
Against: None
(18 participants abstained)

**Decision**: implement proposal (iv) above –namely: add a section “Properties” that’s placed right below the scope-note of the property and right above the examples section

#### Statement about the relation of the CIDOC CRM base file and the PC module (.1 properties declaration)

PF read the statement he drafted for the .1 properties to be put at the end of the comments section of the CRMbase file. No counterproposals, everyone happy with the content of the statement.

The SIG voted on introducing the statement for the RDFS implementation of CIDOC CRM at the end of the CRMbase file, as proposed by PF.
**Outcome of the vote**
In favor: 12 (7 in person, 5 online)
Against: None
(18 participants abstained)

**Decision**: implement. The statement can be found below:

Since RDF does not provide a direct way to define properties of properties, we make use of ‘property classes’ as a reification method for encoding the below properties of properties of CIDOC-CRM 7.1.1 in RDF:

- P3.1 has type: E55 Type

- P14.1 in the role of: E55 Type

- P16.1 mode of use: E55 Type

- P19.1 mode of use: E55 Type

- P62.1 mode of depiction: E55 Type

- P67.1 has type: E55 Type

- P69.1 has type: E55 Type

- P102.1 has type: E55 Type

- P107.1 kind of member: E55 Type

- P130.1 kind of similarity: E55 Type

- P136.1 in the taxonomic role: E55 Type

- P137.1 in the taxonomic role: E55 Type

- P138.1 mode of representation: E55 Type

- P139.1 has type: E55 Type

- P144.1 kind of member: E55 Type

- P189.1 has type: E55 Type

The implementation is provided in a different RDF file (CIDOC\_CRM\_v7.1.1\_PC.rdf). The file defines the property classes, the properties of properties, as well as a set of classes and properties needed by this reification method.

Usage example

We want to express the information that an activity (instance of ‘E7 Activity’) was carried out by an actor (instance of ‘E39 Actor’) and that the actor had a specific role while carrying out this activity. First, the activity instance is linked to the actor instance using the property ‘P14 carried out by’. The P14 property has the property 'P14.1 in the role of: E55 Type' which allows expressing the role the actor had while carrying out the activity. So, the property class 'PC14 carried out by' is defined and used as the domain of the property 'P14.1 in the role of'. During data generation, an instance of 'PC14 carried out by' is created which is linked to: i) the domain of 'P14 carried out by' (an instance of 'E7 Activity') using the property 'P01 has domain', ii) the range of 'P14 carried out by' (an instance of 'E39 Actor') using the property 'P02 has range', and iii) a type (instance of 'E55 Type') using the property 'P14.1 in the role of'.

Below is an indicative set of RDF triples:

:painting\_sistine\_chapel

 a crm:E7\_Activity .

:Michelangelo

 a crm:E39\_Actor .

:painting\_sistine\_chapel

 crm:P14\_carried\_out\_by :Michelangelo .

:instanceOfPC14

 a crm:PC14\_carried\_out\_by ;

 crm:P01\_has\_domain :painting\_sistine\_chapel ;

 crm:P02\_has\_range :Michelangelo ;

 crm:P14.1\_in\_the\_role\_of :master\_craftsman .

:master\_craftsman

 a crm:E55\_Type ;

 rdfs:label “Master Craftsman” .

#### Including an introductory text and an instantiation example in the PC module.

The SIG went through the introductory text & instantiation example in the PC module for v7.1.1 (proposal by PF).

The SIG voted on enriching the PC module for subsequent with the introductory text and instantiation example as proposed by PF for v7.1.1.
**Outcome of the vote**
In favor: 12 (7 in person, 5 online)
Against: 1 (none in person, 1 online –on the grounds that the same content could be rendered through rdfs:comment instead)
(17 participants abstained)

**Decision**: add the XML comments in v7.1.1 and subsequent stable versions. The enriched file (e.g., for version 7.1.1) can be found [here](https://cidoc-crm.org/sites/default/files/CIDOC_CRM_v7.1.1_PC.rdf). How the content is represented (xml comments vs rdfs:comment) can be dealt with in a separate issue.

#### Clarify the classes/properties that do not form part of the official definition of the CIDOC CRM

The SIG went through the XML comments in the PC file for v7.1.1 stating what forms part of the definition of CIDOC CRM [.1 properties] and what doesn’t [PCs (proposal by PF -found at the enriched file)].

**Discussion**:

* While the comments are useful and self-explanatory, there are other things in the RDFS files that do not form part of the definition of CIDOC CRM (other than the contents of the PC file). P81-P82a/b for instance.
* Need to mark all the elements that are part of the implementation of the model as such.

**HW**: PF to look at the different kinds of statements

#### Did not go through the points F through I of the working document for want of time.

* Enrich the pc file with labels and scope notes (rdfs;comment)
* Include a property, e.g., ‘P04 reifies’, that connects the property with its reified class
* Provide implementation guidelines
* Directionality of PC proeprties

**How to proceed:** to be discussed through the SIG list
**HW**: PF to organize an evote.