# The 38th joined meeting of the CIDOC CRM SIG and ISO/TC46/SC4/WG9 and the 31st FRBR - CIDOC CRM Harmonization meeting

3-6 April 2017

**FORTH-ICS** 

Herakleion - Crete

Vincent Alamercery (Laboratoire de Recherche Historique Rhône-Alpes), Detlev Balzer (IID Potsdam, DE), Chryssoula Bekiari (ICS-FORTH, GR), Francesco Beretta (Laboratoire de Recherche Historique Rhône-Alpes), Patrick Le Boeuf (BnF, FR), George Bruseker (ICS-FORTH, GR), Lida Charami (ICS-FORTH, GR), Pierre Choffé (Music Manager, FR), Eleni Chistaki (University of Athens, GR), Maria Daskalaki (ICS-FORTH, GR), Martin Doerr (ICS-FORTH, GR), Øyvind Eide (University of Cologne, DE), Anaïs Guillem (IMS-FORTH, GR), Gerald Hiebel (University of Innsbruck, AT), Athina Kritsotaki (ICS-FORTH, GR), Jutta Lindenthal (IID Potsdam, DE), Chris Oliver (McGill University, CA), Christian Emil Ore (Unviversity of Olso, NO), Ritchard Smiraglia (University of Wisconsin USA), Stephen Stead (Paveprime Ltd, UK), Pat Riva (Concordia University, CA), Mélanie Roche (BnF, FR), Maria Theodoridou (ICS-FORTH, GR), Thanasis Velios (University of the Arts, UK), Catherine Velivasaki (Archaeologist, Greece), Maja Žumer (National and University Library, SI).

# **Monday 3 April**

#### **ISSUE 309**

The crm-sig reviewed the last document presented by Lida and the labels of the temporal properties and decided the following new labels:

- P173 starts before or with the end of (ends after or with the start of)
- P174 starts before the end of (ends after the start of)
- P175 starts before or with the start of (starts after or with the start of)
- P176 starts before the start of (starts after the start of)
- P182 ends before or with the start of (starts after or with the end of)
- P183 ends before the start of (starts after the end of)
- P184 ends before or with the end of (ends with or after the end of)
- P185 ends before the end of (ends after the end of)

Homework assigned to Lida to add caption to each graphic. Also remains pending the HW about adding examples to the above properties. This HW has been assigned to Francesco Berretta and Wolfgang

Then reviewed the grouping proposed by Gerald and decided the following:

- to be removed from the list of spatiotemporal relationships the P166 was a presence of (had presence) and the P167 was at(was place of) since they are not primary topological relationships
- to accept the groupings proposed by Gerald
- to assign to Gerald to write an introduction to these. The introduction will describe what CRM covers and where to go for more precise model, eg. OGC for spatial.
- Open question remains if these properties are true super properties to the classes within a model like OGC.

Finally, the sig motivated by the open question decided that it is needed to a guideline to be written if someone using an extension would like to reduce to core CRM model. The sig assigned to CEO to write this guideline and assigned to CEO and Gerald to make the appropriate adjustments for all CRM extensions. In addition, the sig decided to open a new issue for these guidelines.

#### **ISSUE 234**

The sig reviewed and accepted the proposed changes to the scope note of P7 made by George for the representative date for 'Britain'. Thus the second paragraph of the scope not of P7 took place at (witnessed) changed to

"The related E53 Place should be seen as a wider approximation of the geometric area within which the phenomena that characterise the period in question occurred, see below. *P7took place at (witnessed)* does not convey any meaning other than spatial positioning (frequently on the surface of the earth). For example, the period "Révolution française" can be said to have taken place in "France in 1789"; the "Victorian" period may be said to have taken place in "Britain from 1837-1901" and its colonies, as well as other parts of Europe and North America. An instance of E4 Period can take place at multiple non-contiguous, non-overlapping locations."

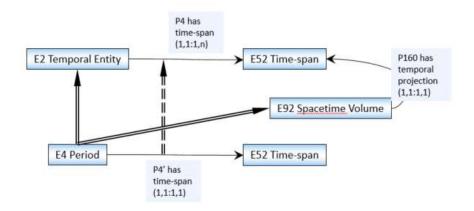
#### **ISSUE 293**

CEO presented the proposals for transferring S15 Observable entity from CRMsci to CIDOC CRM. The sig proposed to study carefully which classes currently proposed to fall under observable entity are actually reasonably said to be observable (observability implies falsifiability by empirical means). For example is E2 observable? Potentially the observable entity will involve heavy multi inheritance. The definition of observable should be clarified and we should find what is not observable. Also consistency with CRMinf should be achieved.

Homework assigned to Oyvind, Steve, George, CEO

#### **ISSUE 326**

CEO presented his graphs. Then Martin made the following graph on the board



Finally the sig asked Gerald to complete the graphical representation showing the logical resolution.

#### **ISSUE 332**

The crm-sig discussed about the Properties of S10 Material Substantial of CRMsci. It had been proposed in the past to move the CIDOC CRM properties P44, P45 and P46 from E18 Physical Thing to E70 Thing for facilitating their inheritance in S10. Also P46 has been declared again here.

The crm-sig said that P46 belongs to crm-core cannot defined again with the same code and name and the request of moving P44 and P45 to E18 is obsolete. There are entities, which are basic to the extensions and the core. The guestion is: how knowledge revision is formulated.

It is proposed to discuss with Carlo on FOL model of relation constraints and CEO to consider how to create a logical construct that will model evolution of knowledge/expansion of domain range.

#### **ISSUE 312**

The sig reviewed the proposal from Gerald about the elaboration of scope note of E4 in oeder to include the geopolitical unit. The final text to be added to the E4 is the following

"Geopolitical units exist in time and may vary in spatial extent and can be modelled as instances of E4 Period.

A geopolitical unit as a specific case of an E4 Period is the set of activities and phenomena related to the claim of power, the consequences of belonging to a jurisdictional area and an administrative system that establishes a geopolitical unit.

Examples from the modern period are countries or administrative areas of countries such as districts whose actions and structures define activities and phenomena in the area that they intend to govern. The borders of geopolitical units are often defined in contracts or treaties although they may deviate from the actual practice. "

#### **Presentation session**

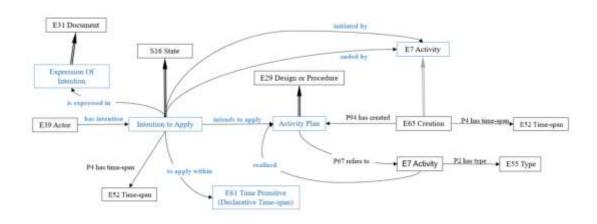
Then Francesco Beretta presented their work about aligning the symogih.org ontology with the CIDOC CRM.

The crm-sig proposed to review the aligning and recommended them to adopt the bottom up approach not the top down.

# **Tuesday 4 April**

#### **ISSUE 333: Model for Plans**

MD presented the model for plans



The sig reviewed the proposed scope notes by Martin commented by Velios. The reviewed scope notes are in the appendix A.

The crm-sig agreed in principle and decided to assign numbers and add these to the core. It is needed to be checked the consequences on extensions, especially FRBR, and CRMsci. HW is assigned to Anais, Steve and Oyvind

#### **ISSUE 329: States and Situations**

The crm-sig reviewed the proposed by MD scope note. The current formulation for *\$16 State* is the following:

"This class comprises persistence of particular value ranges of the properties of a particular thing or things over a time-span. The identity of an instance of S16 State is given by prescribing the properties and value ranges under consideration, such as "me being in my office". From this prescription of properties results the ability to observe the time-span, and possibly the spatial area, for which the specified properties hold."

Further work for finding real instances in order to test the definition. Potential examples may be someone being somewhere /possession / have a quality . e.g. king going around his territory in a year,

tracking this movement to understand his agenda etc. HW is assigned to MD, Francesco, George, to contact to Aldo Gangemi for opinion.

It is proposed to put the defined relations in named graph and attach statement that is T for time span x. Identity would depend on definitions of the properties. Fever example, B. Smith, observable period depends on definition of the value range. It is not needed to be mentioned the encoding form. It can be followed the model of I4 Proposition set

HW is assigned to CEO and Carlo for logical formulation and MD to define a property that would associate the state with the proposition set. A comment was that Property holding over time does not imply it is temporal.

The sig accepted that another linked issue is: what then to do with belief state and intention to apply state? These seem not to be only epistemological / declarative as the above definition suggests.

The sig decided that it is needed the homework and the research to be completed before the scope note modification.

Then the sig reviewed the scope note of the proposed new class about *SXX situation*. The reviewed scope note is the following:

"This class comprises the persistences of particular value ranges of the properties of a particular thing or things over a time-span. The identity of an instance of SXX Situation is given by prescribing kinds of properties and a particular time-span and possibly the spatial area. From this prescription of properties results the ability to observe the values of the kinds of properties, which hold in the specified time-span and spatial area."

The crm-sig proposed that it should be inserted a statement saying that situation is a snapshot of a state.

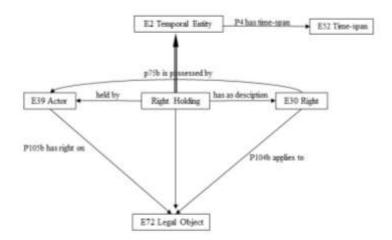
It is decided to consider the definition of "situation" with State question above, alongside examples, and to try to understand what it is (isa placement) and derive the potential relations.

#### **ISSUE 335: New class for Right Holding**

The crm-sig reviewed Athina's proposal about Right Holding (see figure below) and made the following comments:

- It seems that the class Right Holding should be a state, considering that when we say that somebody has a right we mean that has a social status. Thus, the definition of this class should be compatible with the definition of S16 State and Sxx Situation. (issue 329)
- It should be explored if extra properties are needed in order to be a state as well as the nature of these properties.
- The definition of the class Right Holding should be compatible with the definition of the new classes of plan model (issue 333).
- It should be examined the relation between Acquisition and Ownership
- Also it should be examined the events that establish or end the right state

HW is assigned to Richard and Martin to formulate the definition of the class Right Holding.



# **ISSUE 330: Physical Ownership and Right**

The crm – sig discussed about the right and commented the following:

- About the right itself: it should be an inference of querying of something establishes, like ownership
- To take into account the discussion about right holding
- The content of E30 Right, not the state of holding, cannot change. Thus a decision event is needed.
- The temporality is the endpoint of establishing event
- Ownership is a pure property
- Through Acquisition event, it could be established a relation with the decision event

It is assigned to Martin and Steve to rewrite the scope note of E30 Right.

# **ISSUE 328: Rights Model**

The crm-sig discussed about transferring ownership of an E30 Right. Comments and decisions are:

There is no substance of transferring rights

To take this discussion as a methodological example and to state it as a pitfall.

To add copyright examples in the scope note of E30 Right .

The question "for how long Getty holds rights for an object" cannot be inferred from CRM.

The modelling of such things could be part of another extension of CRM e.g. CRMsocial  $\,$ 

CRM-sig assigned to CEO and MD to understand the different cases.

# **ISSUE 331: Economic values of objects**

The crm-sig decided to close the issue; it seems that this is part of the general discussion on rights related to Ownership or Acquisition events. Exchange of values of physical things or titles are related to acquisition events. Consequently, we have to examine the kind of the relation existing between acquisition (or other kinds of transactions) to rights, so this issue points to issue 330.

#### **ISSUE 337: Excavation Interface**

Gerald Hiebel made a presentation about excavation interface on CRMarchaeo and proposed to introduce (a) new class about excavation interface, (b) a new property to the A1 Excavation Process Unit which will describe the production of the excavation interface (c) new class about segment of matter and a new property of it for describing the confinement of the excavation interface.

The crm-sig accepted the proposal and assigned to Gerald to write the definition of the proposed classes and properties.

#### **ISSUE 302**

The crm-sig accepted the proposed changes in A6 and AP16. The new text follows

#### **A6 Group Declaration Event**

Subclass of: <u>E13</u> Attribute Assignment

Scope Note:

This class comprises interpretive activities that lead to the recognition that two or more instances of A8 Stratigraphic Unit or other E18 Physical Thing that simultaneously exist at the time of this declaration - or at the time of an archaeological observation this declaration refers to as a source - are actually the remains of one previously complete instance of Physical Thing (E18) that had existed at a time of reference in the past. An instance of A6 Group Declaration is used to indicate that, at the time of reference in the past, the instances of A8 or E18 that are attributed to be its remains by this event were integral parts of the past whole object (E18) and shared an identity with it. Instances of this class are not used for indicating acts of purely declarative grouping, such as sorting into bags or types.

Examples:

two stratigraphic units (with no evident contact) cut through by a ditch having been segments of the same original stratigraphic unit

two or more surviving parts of a structure having been segments of the same wall a number of postholes being the indication of a past wooden house or a number of potsherds being segments of the same original artefact

#### Properties:

<u>AP16</u> assigned attribute to (was attributed by): <u>E18</u> Physical Thing <u>P141</u> assigned: <u>E18</u> Physical Thing

#### AP16 assigned attribute to (was attributed by)

Domain: A6 Group Declaration Event

Range: <u>E18</u> Physical Thing

Subproperties: E13 Attribute Assignment. P140 assigned attribute to (was attributed by): E1 CRM

**Entity** 

Quantification: one to many (0,n:0,1)

Scope note: This property relates an instance of E18 Physical Thing to the instance of A6 Group

Declaration Event that declares it to be remains of some previously existing whole.

The crm-sig reviewed the examples proposed by Eleni Christaki and made the following comments:

**Example on A6:** "During the excavation process of the Room 5 (A1) of the West House (E24) were found a slabs surface (E18) on the deposit (A8) on the upper storey (E53) and several individual slabs (E19) on the deposit (A8) on the ground floor (E53), declared by the excavators to be parts of the original paved floor (E19) of the room".

The example is accepted. It must be rephrased to make it about the group declaration of the two objects declared to be part of the previously extant object. Bibliography should be added

**Example A7:** "Individual fallen slabs (E19) were discovered in almost vertical position (E55) within the deposit (A8) on the ground floor (E53) during the excavation process of the Room 5 (A1)".

The example is accepted but it should make use of A7

**Example A9:** "The archaeological excavation (A9) of the West House (E24) that took place at the archaeological site of Akrotiri, Thera (E53) during the years (1967-1973) (E52) by the archaeologist Sp. Marinatos (E39)".

The example is accepted. Reference should be added.

The crm-sig assigned these HWs to Eleni Christaki

#### **ISSUE 321**

The crm-sig discussed George's email to Paola about natural parts of building and decided

- (a) BP11.2 to be deleted
- (b) The domain and range of BP11 should be changed to B4 Empty Morphological Building Section as well as the scope note of BP11 should be revised in order to include transitivity
- (c) The scope note of B4 should be revised too.

**ISSUE 315** 

The crm sig discussed the proposal of Achille and decided the following:

(a) to delete P9 from A9

(b) to integrate the model for plans with excavation area and to elaborate new property (new issue)

(c) to close this issue

The integration of excavation area with plans model is assigned to Achille, Anais, Gerald, Steve, Eleni

Christaki

**ISSUE 299** 

The crm-sig reviewed and accepted the proposals made by Gerald Hiebel to generalize the scope

notes of AP15 and AP21. Thus, the new scope notes are the following:

AP15 is or contains remains of (is or has remains contained in)

Domain: S20 Physical Feature

Range: \$10 Material Substantial

Quantification: one to many (0,n:0,1)

Scope note:

This property indicates that an instance of S20 Physical Feature can be the remains of

or contain the remains of an instance of S10 Material Substantial. The S20 Physical

Feature may be an A8 Stratigraphic Unit if the excavation methodology was

stratigraphic, meaning that an A1 Excavation Process Unit intended to approximate

(AP6) an A3 Stratigraphic Interface. In case a different excavation methodology was

used, like planar digging (taking of layers of earth of a predefined thickness), the

domain S20 Physical Feature was created through the A1 Excavation Process Unit.

AP21 contains (is contained in)

Domain: S22 Segment of Matter

Range: E18 Physical Thing

Quantification: one to many (0,n:0,1)

Scope note:

This property associates an E18 Physical Thing that is found within a S22 Segment of

Matter with this segment of matter. If a stratigraphic excavation methodology was

used the S22 Segment of Matter may be an A2 Stratigraphic Volume Unit and AP21

contains (is contained in) is a shortcut for the more detailed path from E18 Physical

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Thing through *P18i is embedded*, A7 Embedding, *P19 is embedding in*, A2 Stratigraphic Volume Unit. In this case temporal inferences for the embedding of the E18 Physical Thing can be concluded. In case a different excavation methodology was used, and no single A2 Stratigraphic Volume Unit can be identified with the S22 Segment of Matter, no temporal inferences can be concluded from this relation.

The issue is closed.

#### **ISSUE 282**

No progress. Achille should take an action about this issue.

#### **ISSUE 307**

The crm-sig accepted the examples proposed by Oyvind. The examples are the following ones. The issue is closed.

The pixel size of the jpeg version of Titian's painting Bacchus and Ariadne from 1520-3, as freely downloadable from the National Gallery in London's web page <a href="https://www.nationalgallery.org.uk/paintings/titian-bacchus-and-ariadne">https://www.nationalgallery.org.uk/paintings/titian-bacchus-and-ariadne</a> is 581600 pixels.

#### Example 2:

The scope note of E21 Person in the Definition of the CIDOC Conceptual Reference Model Version 5.0.4 as downloaded from <a href="http://www.cidoc-crm.org/sites/default/files/cidoc crm version 5.0.4.pdf">http://www.cidoc-crm.org/sites/default/files/cidoc crm version 5.0.4.pdf</a> consists of 77 words.

#### **ISSUE 275**

The crm-sig reviewed the text provided by George about E61. The reviewed scope note follows:

#### **E61 Time Primitive**

Subclass of: <u>E59</u> Primitive Value

Scope Note: This class comprises instances of E59 Primitive Value for time that should be implemented with appropriate validation, precision and references to temporal coordinate systems to express time in some context relevant to cultural and scientific documentation.

Instantiating different instances of E61 Time Primitive relative to the same instance of E52 Time Span allows for the expression of multiple opinions/approximations of the same phenomenon. When representing different opinions/approximations of the E52 Time Span of some E2 Temporal Entity, multiple instances of E61 Time Primitive should

be instantiated relative to one E52 Time Span. Only one E52 Time Span should be

instantiated since there is only one real phenomenal time extent of any given temporal

entity.

The instances of E61 Time Primitive are not considered as elements of the universe of

discourse that the CRM aims at defining and analysing. Rather, they play the role of a

symbolic interface between the scope of this model and the world of mathematical and

computational manipulations and the symbolic objects they define and handle.

Therefore they must not be represented in an implementation by a universal identifier

associated with a content model of different identity. In a concrete application, it is

recommended that the primitive value system from a chosen implementation platform

and/or data definition language be used to substitute for this class.

P169 defines spacetime volume (spacetime volume is defined by)

Domain: E95 Spacetime Primitive

Range: E92 Spacetime Volume

Scope note: This property associates an instance of E95 Spacetime Primitive with the instance of E92

Spacetime Volume it defines. {reference to CRMgeo.. check where references need to

be made)

The crm-sig discussed about the missing reference of P169 decided the following:

To postpone the reference to an extension from core

The reference should be removed from the text

To consider again the scope note of P169 under the notion of phenomenal vs declarative

space

P171 at some place within

Domain: **E53** Place

Range: E94 Space Primitive

Scope note:

This property describes the maximum spatial extent within which an E53 Place falls.

Since instances of E53 Places may not have precisely known spatial extents, the CRM

supports statements about maximum spatial extents of E53 Places. This property

allows an instance of an E53 Places's maximum spatial extent (i.e. its outer

boundary) to be assigned an E94 Space Primitive value.

P171 at some place within is a shortcut of the fully developed path E53 Place P89

falls within E53 Place P168 place is defined by E94 Space Primitive through a not

represented declarative Place as defined in CRMgeo (Doerr and Hiebel 2013) to a

Space Primitive.

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Examples:

 the spatial extent of the Acropolis of Athens (E53) is at some place within POLYGON ((37.969172 23.720787, 37.973122 23.721495 37.972741 23.728994,

37.969299 23.729735, 37.969172 23.720787)) (E94)

The crm-sig approved the highlighted changes on the scope note of P171

P172 contains

Domain: E53 Place

Range: E94 Space Primitive

Scope note:

This property describes a minimum spatial extent which is contained within an E53 Place. Since instances of E53 Place may not have precisely known spatial extents, the CRM supports statements about minimum spatial extents of instances of E53 Place. This property allows an instance of E53 Places's minimum spatial extent (i.e. its inner boundary or a point being within a Place) to be assigned an E94 Space

Primitive value.

This property is a shortcut of the fully developed path:

E53 Place P89i contains E53 Place P168 place is defined by E94 Space Primitive

Examples:

the spatial extent of the Acropolis of Athens (E53) contains POINT (37.971431 23.725947) (E94)

The crm-sig approved the highlighted changes on the scope note of P172

Finally the crm-sig assigned to Gerald to write up a new issue to be discussed in the next meeting about places that are indefinitely related in common documentation practice.

**ISSUE 260** 

The crm-sig discussed about the proposal made by Oyvind and decided the following:

The proposed changes in the scope note of E35 Title has not been accepted

The new definition about E49 Time Appellation has been accepted.

The E51 Contact Point will be discussed in the next meeting.

**E49 Time Appellation (New definition):** 

Subclass of: E41 Appellation

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Scope Note: This class comprises all forms of names or codes, such as historical periods, and dates, which are characteristically used to refer to a specific E52 Time-Span.

The instances of E49 Time Appellation may vary in their degree of precision, and they may be relative to other time frames, "Before Christ" for example. Instances of E52 Time-Span are often defined by reference to a cultural period or an event e.g. 'the duration of the Ming Dynasty'.

#### Examples:

- "Meiji" [Japanese term for a specific time-span]
- "1st half of the XX century"
- "Quaternary"
- "1215 Hegira" [a date in the Islamic calendar]
- "Last century"
- "2013-10-05"
- "Mon May 19 22:39:23 CET 2014"

# Wednesday 5 April

#### **ISSUE 334**

The crm-sig reviewed the emails sent by Martin, Francesco and Simon and made the following comments and suggestions:

It is suggested that the label of the proposed new subclass (see the quote below) "Reading" of I2
 Belief should be 'citation' or 'citing' or 'quotation' 'attested proposition'.

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J1 used as premise (was premise for): IXX Reading

IXX Reading subclass of I2 Belief (or a generalized Belief)

properties of IXX Reading:
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JX1 understanding : Information Object (the cited phrase, understanding the words)

JX2 believing provenance: I4 Proposition Set (This contains the link from the cited phrase to the text the phrase is taken from, and all provenance data believed. E.g. Shakespeare edition 1648(??) believed, authorship by Shakespeare questioned, etc.)

optional:

JX3 reading as: 14 Proposition Set (the translation of the cited into triples. If absent, the interpretation of the cited phrase is regarded to be obvious)

and J5 defaults to "true" (I believe all "J5 holds to be: I6 Belief Value" should default to "True" if absent).

Then, a conclusion could be that the Information Object (cited phrase) is not believed. In that case, we would need to generalize I4 to be either a Named Graph or an unambiguous text. If we do not, we could use JX1, JX3 to introduce the translation of the cited text as formal proposition, and then use J5 to say "FALSE": "Nero singing in burning Rome 18 to 24 July, 64 AD"

- Provenance (which would contain an instance of I5 or I1) give the context against which the 'translation' of the propositions can be assessed and from which ambiguity may arise.
- HW is assigned to Maria Daskalaki, Martin, and Francesco to write the scope notes of the
  proposed classes and properties and to find use cases with contradictory content. An alternative
  example from Tacitus/Nero is the register's example.
- HW is assigned to Steve to review and edit the proposal made by Maria, Martin and Francesco.
- Then Anais should try to test against some actual data from Lyon (Anais model)
- It is assigned to Oyvind to send names and contact J. Bradley about approaching medievalist to the case on question of redundantly representing data in the graph.
- It is accepted the new issue proposed by Martin "How to use the formulated premises in an argument of adjudication, that x or y was right." . It is assigned HW to Athina, MariaD, Oyvind, Steve to formulate this issue.
- It is accepted the new issue proposed by Francesco about the nature of existence assertion. 'Nero set fire to Rome', how to express <u>Nero set fire to Rome</u>, and expressions of non-existence. How do I speak of what does not exist? It is assigned HW to Carlo, MariaD, Fransesco, Martin to investigate this issue.

#### **ISSUE 322**

The crm-sig discussed CEO's email that I1 is subclass of E13 but does not use or reference its properties and made the following comments:

- To put a type on E13 which references the properties, so that you can specify the relation attributed
- Either delete E13 or get this logical formulation.
- Could there be an automated inference that would translate E13 to I1 and vice versa?
- Need logical representation of named graphs at instance level.
- It is needed a named graph logic specialist

HW is assigned to CEO, Carlo for logical representation of named graphs at instance level.

# **ISSUE 313 assistance on mappings**

The crm-sig discussed this issue and re assigned the following:

- About the proposed questions: (i) How we can systematically collect mapping advice material, (ii) How we index this material, (iii) If we know how to classify to bring it in adequate format; It is assigned to Chryssoula and GB to create a place to save mapping advice and to send reminder out to people who have done/are doing mappings to provide their methodological advice/tools from actual projects.
- About Martin's question which is the position of CRM-SIG about X3ML, it is proposed that it should be established a set of criteria which any such language/tool would need to meet in order to be able to be used as an interchange format. This would then remove need to recommend X3ML in particular, but allow an ability to judge a tool/language.

  Some proposed ideas for criteria are: mapping language must be declarative (domain users cant be expected to read code), mapping scenarios (see graphs on 36<sup>th</sup> meeting), metadata

Subtask: could submit as a recommendation of SIG (and by transference CIDOC). This would mean presentation of this to the General Assembly of CIDOC committee. This is assigned to Steve and MD

## **ISSUE 314: The introductory text of CIDOC CRM site**

The crm-sig assigned to GB to write a text, Steve to review it and to be proposed to the crm-sig for approving.

#### **ISSUE 298**

of mapping itself

The crm-sig reassigned to CEO and MD to define what we mean with bottom up development. The comments made are

- We form logical axioms about the reality we talk about it.
- If a new property is outside we extent the core
- It should be defined in the practical scope by CEO

# **Texts in new site of CIDOC CRM**

The crm-sig went over the missing texts of new CIDOC CRM site:

- Home » The Model » Use&Learn » User Guidance: A short introductory text should be should be written here (GB and Francesco Beretta homework)
- Home » The Model » Use&Learn »Methodology of ontology development: we should add texts about :
  - "What makes a good concept" (HW by Steve, MD and MDA)
  - "Mappings" (HW by GB and Maria Theodoridou)
- Home » The Model » Compatible Models » Short Intro

Short intro (HW by MD)

- Property of property model to be presented together with releases
- Specifications should be written for each document type. This is should be presented in an FAO
- To add in family models the doremus model with "under review" note (by Pier Choffe)
- FRBRoo and PRESSoo homepages text to be written by Pat
- Home » People » Short Intro: Short intro who we are brief history : the test of the old site should be added here
- To update current email lists, rules for membership, institutions
- Workshops: Steve will send a list

#### **ISSUE 278**

The crm-sig reviewed the proposal made by MD and GB. The final text follows

## **E99 Product Type**

Subclass of: E55 Type

Superclass of:

Scope note:

This classes comprises types that stand as the models for instances of E22 Man-Made Object that are produced as the result of production activities using plans exact enough to result in one or more series of uniform, functionally and aesthetically identical and interchangeable items. The product type is the intended ideal form of the manufacture process. It is typical of instances of E22 that conform to an instance of E99 Product Type that its component parts are interchangeable with component parts of other instances of E22 made after the model of the same instance of E99. Frequently, the uniform production according to a set E99 Product Type is achieved by creating individual tools, such as moulds or print plates that are themselves carriers of the design of the product type. Modern tools may use the flexibility of electronically controlled devices to achieve such uniformity. The product type itself, i.e., the potentially unlimited series of aesthetically equivalent items, may be the target of artistic design, rather than the individual object. In extreme cases, only one instance of a product type may have been produced, such as in a "print on demand" process which was only triggered once. However, this should not be confused with industrial prototypes, such as car prototypes, which are produced prior to the production line being set up, or test the production line itself.

### P187 has production plan (is production plan for)

Domain: E99 Product Type

Range: E29 Design or Procedure

Quantification: one to many (1,n:1,1)

Scope note:

This property associates an instance of E99 Product Type with an instance of E29 Design or Procedure that completely determines the production of instances of E18 Physical Thing. The resulting instances of E18 Physical Thing are considered exemplars of this instance of E99 Product Type when the process specified is correctly executed. Note that the respective instance of E29 Design or Procedure may not necessarily be fixed in a written/graphical form, and may require the use of tools or models unique to the product type. The same E99 Product Type may be associated with several variant plans.

#### Examples:

the production plans (E29) for Volkswagen Type 11 (Beetle) (E99)

#### P188 requires production tool (is production tool for)

Domain: E99 Product Type
Range: E19 Physical Object

Quantification: one to many (1,n:1,1)

Scope note:

This property associates an instance of E99 Product Type with an instance of E19 Physical Object that is needed for the production of an instance of E18 Physical Thing. When the process of production is correctly executed in accordance with the plan and using the specified instance of E19 Physical Object, the resulting instance of E18 Physical Thing is considered an exemplar of this instance of E99 Product Type. The instance of E19 Physical Object may bear distinct features that are transformed into characteristic features of the resulting instance of E18 Physical Thing. Examples include models and moulds.

#### Examples:

the luggage compartment lid mould (E19) for the Volkswagen Type 11 (Beetle) (E99)
 (https://upload.wikimedia.org/wikipedia/commons/thumb/b/b5/Volkswagen\_

Type\_1\_(Auto\_classique\_St.\_Lazare\_%2710).jpg/220px-

Volkswagen\_Type\_1\_(Auto\_classique\_St.\_Lazare\_%2710).jpg)

The issue is closed.

#### **ISSUE 227**

The sig reviewed and accepted MD's proposal for the scope note of P165 about adding a paragraph for feature transfer. Thus the new scope note is the following:

#### *P165 incorporates (is incorporated in)*

layout for the characters.

Domain: E73 Information Object

Range: E90 Symbolic Object

Subproperty of: E90 Symbolic Object. P106 is composed of (forms part of): E90 Symbolic Object

Quantification: (0,n:0,n)

Scope note: This property associates an instance of E73 Information Object with an instance of E90

Symbolic Object (or any of its subclasses) that was included in it.

presence of the text of a play in a movie based on that play, etc.

This property makes it possible to recognise the autonomous status of the incorporated signs, which were created in a distinct context, and can be incorporated in many distinct self-contained expressions, and to highlight the difference between structural and accidental whole-part relationships between conceptual entities. It accounts for many cultural facts that are quite frequent and significant: the inclusion of a poem in an anthology, the re-use of an operatic aria in a new opera, the use of a reproduction of a painting for a book cover or a CD booklet, the integration of textual quotations, the presence of lyrics in a song that sets those lyrics to music, the

In particular, this property allows for modelling relationships of different levels of symbolic specificity, such as the natural language words making up a particular text, the characters making up the words and punctuation, the choice of fonts and page

When restricted to information objects, that is, seen as a property with E73 Information Object as domain and range the property is transitive.

A digital photograph of a manuscript page incorporates the text of a manuscript page, if the respective text is defined as a sequence of symbols of a particular type, such as Latin characters, and the resolution and quality of the digital image is sufficient to resolve these symbols so they are readable on the digital image.

The issue is closed

# **Thursday 6 April**

#### **LRM**

The meeting started with the presentation of LRM. Comments before or during the presentation were:

- We should clarify how formally envisage the relationship between FRBRoo and LRM.
- FRBR constructs are still valid to LRM
- Mapping between FRBRoo and LRM.
- A statement is needed from IFLA that the FRBRoo is still valid as document
- We have to check all the scope notes what part of FRBRoo is inconsistent with FRBRER
- We should check the PRESSoo with the changes
- FRBRoo version 3.0 : FRBRoo-LRMoo
- The mapping section will be drastically changed
- We will not change the numbering schema, we will keep the same codes for classes and properties.
- Open issue on CRM itself: The Appellation is identified by its own. This probably leads to inconsistencies
- Definition by Shannon: "the receiver and sender have an a priori common understanding of signs"
- The provenance is unknown, the identity assumptions are based on common provenance
- A basic confusion which is nice to solve is that a sequence of symbols is a message from a particular provenance

#### F1 Work:

- (a) to get rid of F14
- (b) to revise the scope note of F15

The work is always explicit to expression and to make a statement that it isn't stated if we encounter more than one expression of the same work

A work exist if exists at list one expression

R1 is logical successor of (has successor): F1 Work

=> (it should be added a relation it is inspired by)

#### R2 is derivative of (has derivative): F1 Work

=> (we should revise this since we don't have the F14)

We should clarify since it might be recognizable pieces)

(R2.1 has type: E55 Type)

#### R3 is realised in (realises): F22 Self-Contained Expression

=>(this is exactly the same)

# R40 has representative expression (is representative expression for): F22 Self-Contained Expression

⇒ we should preserve in some form

#### **F2 Expression**

F23 Expression Fragment (we should revise the F23) to check the emails "what is the ontological notion of page" is it a fragment or is it a compliment of a self contained expression; is it a manifetastaion level concept

F34 KOS (just check)

F35 Nomen Use Statement (it was the presctive part)

F43 Identifier Rule just check to see along with linked open data rules

# R41 has representative manifestation product type (is representative manifestation product type for): F3 Manifestation Product Type

⇒ (it might be not needed)

#### F3 Manifestation Product Type => Manifestation

It seems to be identical with the manifestation in LRM, we should include something about manifestation singleton as in LRM

Whatever manuscript we have there is a manifestation. If we consider production planning we may have problem.

In LRM manifestation is a publication expression

#### F4 Manifestation Singleton (deleted)

We may get rid of this

#### R42 => deleted

#### F5 Item

We may distinguish items that are compatible with the manistation and items that are not. In that case would a subclass E22 Man-made Object, the text should be revised

#### **F6 Concept** => deprecated

We deprecate

#### F7 Object=> deprecated

It is deprecated to physical thing

#### F8 Event=> deprecated

E52 Time –span should be introduced to FRBRoo

#### F9 Place

in LRM is E53 Place. E53 place is more than that in LRM. It is not clear in CRM. It becomes clearer if we associate with space –time volumes. We should revise the place concept and to distinguish with what GIS calls "features" in order to relate to geometric extent

When we consider place names as authority data then they are inconsistent with the above comment. When we refer to a city and we make the restriction to administrative area then this definition is unambiguous with place names as they referred in gazetteers. The city limits at medieval times are clear.

F9 Place should be revised

#### F10 Person

We need to introduce to FRBR the entity E39 actor which might be identical with agent (<u>LRM agent = E39 Actor</u>)

#### F11 Corporate Body = LRM: Collective agents

F11 label should be changed to collective agent (replace scope note with LRM scope and get rid of corporate body)

#### F12 Nomen

To review the scope note. The F12 Nomen are not exactly the LRM-E9 Nomen It is decided to harmonize CIDOC CRM with LRM concept of identity of Nomen

#### F13 identifier

F13 identifier in LRM does not pertain identifiers. In LRM "has appellation" shows to a relationship It can only compare with CRM PC. We should think to Nomen as a reification

#### F14 Individual Work

We have to consider to which degree express the expression creation

#### F16 Container Work

To make aggregation Work distinct from container work

#### F19 Publication Work

It is an aggregation work.

#### **F20 Performance Work**

The sig questioned that a performance work is a container work and need it incorporate other works? Recording Work is modelled redundantly, it is a recording work because it is recorded.

it's only property is R13 which relates it to its special type of event

is the perfomance itself an expression creation?

The expression creation could be generalized to externalization of signs (not the particular case of writing which necessarily leaves traces)

It is decided to be reviewed if this is a container work?

#### **F21 Recording Work**

It is redundant but not the recording

#### F24 Publication Expression => manifestation

Publication expression has properties inconsistent with the scope note because the scope note says that this is the moment of distribtion but the property says that only the publication expression is created. But this is a step before actually 'making available' a publication expression.

Keep, to be merged with F3 and call it manifestation

#### **F25 Performance Plan**

Is the traces of the expression, it is outside of the core but it is used, to be revised to see the performance as an expression creation, we could simplify the performance model

#### **F30 Publication Event**

To be considered if we keep, if we keep revision is needed

Note Pat: we do not have something exclusive to distribution

#### **F31 Performance**

To be revised along with performance plan

#### **F32 Carrier Production Event**

R26 produced things of type (was produced by): F3 Manifestation Product Type to be merged with R27

#### **F33 Reproduction Event**

R29 reproduced (was reproduced by): E84 Information Carrier-> the range should be F54 R30 produced (was produced by): E84 Information Carrier the range should be F54

#### **F34 KOS**

Update the scope note for continuously updated (to consider the Parthenos volitate content). The volaitet data set takes are identified from the plan

#### F35 Nomen Use Statement

= it is a relationship as it occurs in authority document. The fact that a nomen appears in KOS is a statement

#### F38 Character

We keep it is not part of FrBRoo core

#### F39 Family

We keep

#### **F40 Identifier Assignment**

review

#### **F41 Representative Manifestation Assignment**

To keep out

#### F42 Representative Expression Assignment

To be revised

#### F44 Bibliographic Agency

Deprecated

#### **F50 Controlled Access Point**

out

#### F53 Material Copy

out

#### **F54 Utilised Information Carrier**

We should deprecate E84 information carrier in CRM since it is a class without properties while F54 is nice and to be isA E24 Physical Man-made Thing

E84 will be replaced with F54 everywhere

#### E52 Time span (+)

should be introduced in FRBRoo

where should time validity staement go? F35 or the KOS?

The KOS no longer has versions. It is not present library practice.

decision: the validity period is still okay and should stay on KOS. It is more granular than some documentation practice.

Chryssoula should put in TELOS the new version 3.0 of FRBRoo

#### **ISSUE 311**

The crm-sig accepted the proposed changes by Steve about the second paragraph of scope note of S20. Thus

Old S20 paragraph 2

Due to this stability of form, the maximal real volume in space that an instance of S20 Rigid Physical Feature occupies at some time within its existence with respect to the default reference space relative to which the feature is at rest defines uniquely a place for the feature with respect to its surrounding matter.

#### Revised S20 paragraph 2

Due to this stability of form, the maximal volume in space that an instance of S20 Rigid Physical Feature occupies at some time uniquely defines a place for the feature with respect to its surrounding matter. This is only true in respect to the default reference space relative to which the feature is at rest.

The issue is closed

# **Next meetings**

The crm-sig decided to announce the following forthcoming meetings: 39th CIDOC CRM and 32nd FRBR CRM, on 9 - 12 October, 2017, in Crete, Greece 40th CIDOC CRM and 33rd FRBR CRM, on 15 - 18 January, 2018, in Cologne, Germany 41st CIDOC CRM and 34th FRBR CRM on 22 - 25 May, 2018, the place will be decided

# Appendix A: Model for plans

#### **E100 Activity Plan**

Subclass of: E29 Design or Procedure

Superclass of:

Scope note: his class comprises plans for specific predefined activities or kinds of activities to happen. They consist of descriptions of specific constraints, patterns or types of activities that could be realized. They may also foresee that the planned activities are realized at times explicitly foreseen by the actor intending the application of the plan, for instance, to organize a conference, in which case we may talk about "active plans". Alternatively, times of realization may be foreseen in reaction to external kind of events foreseen by the plan, for instance a rescue action in case of earthquake according to a rescue plan, or a penal action in case of criminal activity according to a law, in which case we may talk about "reactive plans". An instance of Activity Plan does not imply the intention of any Actor to apply it. It may be created together, before or without the will to apply it. For instance, laws are created before they are passed in the parliament. Any Activity Plan may require specific conditions for it to be applicable. For example a plan to excavate a river bank may require that the river is flooded. Or my plan to lime plaster my stone wall requires that it is winter (i.e. wet and cold).

# Examples:

- The disaster plan of Tate Archives in case of the Thames flooding.
- The proposal for conservation work for MS Greek 418 at the Saint Catherine library.

Properties: P? requires event of type (is required by) E55 Type
P? is assessed by (assesses) I4 Proposition Set

#### **E101 Intention to Apply**

Subclass of: S16 State

Superclass of:

Scope note: This class comprises the mental state of intention or wanting to apply a particular instance of Activity Plan by a particular E39 Actor. This can be understood as the period of time that an individual or a group holds a particular will. It binds the activity plan to the actor. The intention to apply may be abandoned before the realization of the plan. When the plan is realized, the intention to apply must still exist. Characteristically, the passing of a law initiates the intention of a parliament to apply a law. In many cases, the creation of the plan initiates the intention to apply it, and in case of "active plans" the realization ends the intention. Often, the existence of the intention to apply cannot be determined other by the realization of the plan.

Examples:

 The intention of Nicholas Pickwoad to undertake conservation work on MS Greek 418 at the Saint Catherine's Library.

#### Properties:

is intention of: E39 Actor is expressed in (expresses): E31 Document to apply within: E61 Time Primitive initiated by: E7 Activity ended by: E7 Activity intends to apply: Activity Plan

#### Expression of Intention (may be not necessary)

Subclass of: E31 Document

Superclass of:

Scope note: This class comprises the externalisation, the expression of the Intention to Apply in the form of identifiable immaterial objects, such as texts, that make propositions about these intentions. These are kind of formal texts, legal documents, proceedings, minutes etc. that document the will, the intentions of the actor.

Examples:
Properties:

#### **Property Declaration**

#### P187 is intention of (has intention)

Domain: Intention to Apply

Range: E39 Actor

Quantification: (1,n:0,n)

Scope note: This property associates an instance of EXX Intention to

Apply an activity plan with the actors intending it.

Examples: "A Parliament regarding a law as being decided"

#### P188 is expressed in (expresses)

Domain: Intention to Apply

Range: E31 Document
Quantification:

Scope note: This property associates an Intention to Apply with the externalisation of this intention (Expression) in a

document.

Examples:

■ The Tate Archives disaster planning document (E31 Document) expresses the intention of undertaking certain actions (E?? Intention to Apply) to save the collection in case of the Thames flooding.

#### P189 to apply within

Domain: Intention to Apply Range: E61 Time Primitive Quantification: (0,n:0,n)

Scope note: This property associates an instance of EXX Intention to Apply with the time constraint foreseen by the intending party for the actual application of the planned activities. The intending party may vary the time constraint over time. In case a newly set time constraint

narrows down a previously set time constraint, one may regard both constraints as being simultaneously true and consistent. In case the newly set time constraint exceeds the previous one (typically delaying the foreseen time of application), we may talk about a modification of the overall intention to apply. This modification should be regarded as an intention in its own right, but being part of an overall instance of EXX Intention to Apply, which continues to be maintained.

Examples: "Law XXX to be in force from 1.1.2018"

To add to scope note: the nature of the time use as declarative

#### P190 initiated by (initiates)

Domain: Intention to Apply

Range: E7 Activity

Quantification: (0,1:0,n)

Scope note: This property associates the beginning of an instance of

EXX Intention to Apply with an explicit activity initiating it. Often, the initiation of intention to apply is implicit in the creation of the activity plan.

Examples: "Parliament XX deciding law YY"

#### P191 ended by (ends)

Domain: Intention to Apply

Range: E5 Event

Quantification: (0,1:0,n)

Scope note: This property associates the end of an instance of EXX Intention to Apply with an explicit activity or event terminating it. Often, the termination of intention to apply is implicit in the realization of the activity

plan. In other cases, it is silently forgotten

Examples: Storing MS Greek 418 into its new phase box (E7 Activity)

ends the intention to conserve it (E?? Intention to Apply)

Suggestion: add to scope note how an event or an activity could bring about an end to the intention. For instance earthquake or volcanic eruption makes possibility fo realization impossible.

Potentially add example form architecture and city planning Anais

#### P192 realized (is realised by)

Domain: E7 Activity Range: Activity Plan

Quantification: (0,n:0,n)

Scope note: This property associates a particular instance of E7 Activity which realized an Activity Plan in a way regarded as valid by the actors intending it. (Should we require that a realization falls within the period of

intending it?)

#### Examples:

- "Getting a fine following paragraph XXX." "I have built my house according to the agreed design (not me alone...)"
- The conservation of MS Greek 418 (E7 Activity) realised the proposals for its conservation (Activity Plan)

(CRM-SIG comment) This scope note particularly requires rewriting to express the notion of the realization only be a realization if it falls within the time span of the intention to apply itself (not its projection of when it would happen).