

## Attendees:

- Kris McGlinn (TCD-ADAPT)
- Walter Terkaj (CNR-STIIMA)
- Richard Pinka (CTU Prague)
- Pieter Pauwels (UGent)
- Odilo Schoch
- Calin Boje
- Jan Voskuil
- Maria Poveda
- Georg F. Schneider (Fraunhofer IBP)
- Jeroen Werbrouck (UGent / RWTH)
- Michel Bohms
- Ana Roxin
- Jakob Beetz (RWTH Aachen University)
- Jyrki Oraskari

## Date and time

- 04/07/2019
- 15:00 BST/ 16:00 CEST

## Agenda (part 1)

1. Review survey results - <https://forms.gle/s1XQ2jKLfgF2vWci6>
2. Highlights of existing work and updates on progress of ontologies and tools

## Minutes (part 1)

- [Kris] Review survey results
  - In total 14 responses received
  - 100 % of the responses are in favor of creating a governance board => Decided
  - [Kris] Who volunteers to be member of the governance board
    - Only Georg volunteered => Decided: Georg joins the board
  - [Pieter] How will we develop the community group charter?
    - We have certain things out of scope
    - [Jan] If we have geometry in scope, we should not confine ourselves to discuss whether or not it resides in a triplestore. There are ways to integrate at the browser level, doing everything with one data store may not be the best solution.
    - [Kris] Ontology available by Mathias that encodes geometry; that is also a possible approach.

- [Michel] We should not agree on the concern that geometry should be not triple-based by principle.
  - [Georg] We should not exclude anyone in the community group. We can later on join a separate group on geometry if such a group emerges in the W3C.
- [Pieter] Charter: Decision to keep a charter. The community should build it.
  - [Georg] I suggest that:
    - I prepare a charter based on <https://w3c-lbd-cg.github.io/lbd/charter/> and a review of existing charters
    - The charter gets suggested to the group in a telco call, during which everyone can co-edit
    - Review suggestions are also collected by members through the community group mailing list
    - Charter gets finalised
  - ⇒ General consensus about this procedure - decided
- [Kris] Which repositories should be kept?
  - The following procedure is decided upon:
  - Give community until end of July chance to champion repository.
    - If someone champions:
      - A fork is created of the championed repository (e.g. Jyrki's repository) in the W3C LBD CG repository
      - Thus, the owner can continue to work on the repository and stays in charge of development.
    - If someone does not champion:
      - we archive the repository
- [Kris] Promotion and advertisement: do we need a slack channel?
  - decided not; there should be enough opportunity for communication without slack
  - [Pieter] note that a slack channel has been created before, and is still active, but is not used at the moment.
- [Kris] LBD GIT for "Tools and Ontologies":
  - Survey indicates to have such a separate page
  - decided that <AP - Kris> will create a page, which can be incrementally filled.
- [Kris] All above decisions are non-final, but indicative. Kris will send out a mail to the mailing list, allowing people to respond to the survey and to these preliminary decisions. During the next telco (1st of August), final decisions are made, based on majority vote in the call, regardless of the number of responses.
- Highlights of existing work and updates on progress of ontologies and tools
  - Moved to the next call

## Agenda (part 2)

1. Presentation of property modelling approaches (CEN TC 442 work - Michel Böhms)
2. Q&A

## Minutes (part 2)

### Property Modelling

Semantic modelling and linking of life-cycle information in the built environment

Re-use rdf data properties and types. But we need more for building which have complex properties.

Property and product templates in CEN TC442 harmonised with the bSI IFC/bSDD

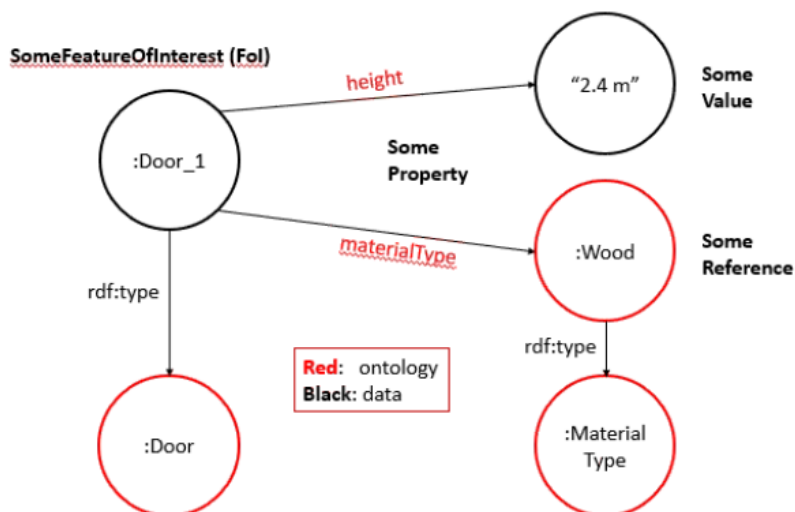
### Ontology for Property Management (OPM)

1. Numerical datatype properties like “height”
2. Lexical datatype properties like “materialType” (enumerations)

3 complexity levels; L1 simplest, no objectification. L2, more complex one time objectification, L3 even more complex, double objectification

Choose one or combine them

## Level L1 - graphically



Maria: Should PropertyType be a subclass of Property?

Potential to use shacl to enforce semantics, but should be used in a complementary fashion.

Michel: Feedback from bSI related to bSD ontology?

Jakob: It boils down to where we put the meta level modelling. Are we using other vocabularies or mechanisms in order to capture this. Industry and end users would appreciate to keep things simple, at least in day to day use.

So these long list of relations may keep people away. It is a difficult thing, some balance must be struck. But perhaps start simple, and then build, or at most the middle way to begin.

Michel: RDF\* might be a solution to adding metadata to the relations?

Jan: The complexity is in the underlying model, and so how that is expressed still needs to be managed

Michel: But perhaps the standard is enforcing complexity that could otherwise be avoided

Jan: The problem is expressing constraint on values. Shacl would be an ideal way to express these. Using extra language constructs is perhaps creating new problems, and is an unknown.

Michel: If we can find a way to solve these problems with the support of the community, that would be great

Jakob: What is the time constraint on the CEN level? Which working group is this from

Michel: CEN TC422/WG4/TG3

Harmonised with iso data container for data delivery. Ensure ICDD stays metalevel.

Time scale to have a draft this year

Pieter: Will you set up a server to manage all this properties for industry, or will it be a document?

Michel: We will have an upper ontology modelling this concepts we propose. Provide semantic resources that can be reused in other ontologies.

On the content side, we are not looking to collect an enormous set of compliant properties, but this is one of the goals of other work packages in CEN, to standardise heights (30 kinds) and need agreement, particularly in the supply side, so comparison can be made and regulated. From the other group there is already a standard

Jan: In the building domain we have an idea about phases, and we need to express instance level data across these phases. Should we consider putting simple data in different graphs. Use a class thing as an instance in another graph.

Jakob: Other domains have issues with evolving models also, and level of specificity. What makes buildings special is that all the stakeholders must agree, and this is why standards are important. Maybe the solution has yet to be found in a larger context. Just for properties, how to solve versioning, without considering the instances themselves.

Michel: If we want to keep the modelling simple, we can put some of this complexity in the linking. If you decide to have ontologies for each phase, then there is a need for interlinking, so

we can connect these views as a kind of network of ontologies. This is an alternative with this technology.

Jakob: How do you see us moving forward with the community?

Michel: We could simplify or make less theoretically the best solution. We would value consensus on the approach, either in this group, or the bSI linked data group. In the end if we have a CEN approach, bSI approach and a W3C approach.

Pieter: For me level 1 & 2 are probably enough, and they align quite well with the property levels in the property modelling (Mads, Maxime) but there is a clear overlap. Considering the first hour of our call, I think we should begin working on a document to give guidelines and best practices for modelling, and for now work on this basis. And ultimately, we link to the standard in CEN for example.

Michel: CEN is interested in the properties of properties, formally annotate these with their purpose, how they are measured, for multi dimensional analysis.

Pieter: We should initiate such a document, based on these slides. Perhaps Michel you could create a live google document based on this and people can give feedback and return to this after summer, or at the next call. So have a deadline.

Michel: I will put this together, and we can have an open discussion then with the community.  
Agreed document: 31st August.

## **Previous minutes**

<https://docs.google.com/document/d/1InY08w3Lojr8IMa7Oqjsw65IHWz81PKa0miPc9IMS1Y/edit#heading=h.k621biyoh9tu>

## **Next Call**

01/08/2019