

Attendees:

- Georg Ferdinand Schneider (Individual CLA but affiliated with Schaeffler)
- Joel Bender (Cornell University)
- Mads Holten Rasmussen (NIRAS, Denmark)
- Odilo Schoch (ASTRA, Switzerland)
- Jeroen Werbrouck (Ghent University)
- Gonçal Costa (LaSalle University)
- Hervé Pruvost (Fraunhofer IIS EAS)
- Serge Chávez (Universidad Politécnica de Madrid)
- Francisco Regateiro (Instituto Superior Técnico, Lisbon)
- María Poveda-Villalon (Universidad Politécnica de Madrid)
- Madhumitha Senthilvel (RWTH Aachen University)
- Katja Breitenfelder (TU Munich / Fraunhofer IBP)
- Anna Wagner (Individual, affiliated with PROSTEP AG)
- Pouya Zangeneh (UofT/Hatch)
- Sylvain Marie (IRT Railenium)
- Jyrki Oraskari (RWTH Aachen University)

Date and time

- 01/12/2020, Tuesday, [16:00-17:30@UTC/ 17:00-18:30@CET/ 08:00-09:30@PST/ 00:00-01:30@CST](#)

Agenda (tentative)

1. Introduction of new participants
2. "[Scan-to-graph: Semantic enrichment of existing building geometry](#)" by [Jeroen Werbrouck](#) from Ghent University
 - Presentation
 - Q&A
3. Recall of WoT Exchange
4. Open Discussion

Minutes

2. "[Scan-to-graph: Semantic enrichment of existing building geometry](#)" by [Jeroen Werbrouck](#) from Ghent University

Presentation (slides available [here](#))

- Results from Master thesis ~2018 published in 2020 [paper](#)
- Challenges in Scan-to-BIM
 - Costly and time intensive
 - Effort to keep model up to date
 - Lack of efficient way to deal with uncertainty
 - Modelling of non-platonic bodies
- Why use linked data based approach?

- Linking of heterogeneous sources
 - Classification of non-contemporary elements (linking getty thesaurus to describe e.g. gargoyles)
 - Document uncertainty
- OMG and FOG ontologies reused
 - Linking and accessing properties of an object
 - Classification reuse ([wikidata](#), [Getty AAT](#), [bSDD-LD](#), [GoodRelations](#))
- Occlusion and uncertainty treatment
- Prototype I is presented in the paper
- Prototype II is a playground for linked building data
 - github.com/lbdserver
 - Point cloud as a start or IFC Model
- Live demo by Jereon
 - LBD Server
 - Backend graphdb and mongodb
 - Allows manual classification

Q&A

- [Georg]: Classification -> Do you reach boundaries where classification is not sufficient anymore to describe relationships of elements?
- [Georg]: foaf:img describes as a domain a [person](#). While reusing did you experience any problems. Related to BOT alignment ontologies? A: Thanks for spotting this.
- [Georg]: stg:isInternalPartOf -> could or are some of the relationships extended from BOT?
- [Georg]: Automated feature extraction and mapping to IRIs? -> scan-to-bim output is a IFC file
- [Anna]: Did you consider adding a visualisation of properties and/or classifications of the selected/queried elements? E.g. based on the [SPARQL-Vis](#) implementation?
 - It's part of the roadmap, shown demo is in early state.
- [Goncal] Slide 19: Regarding the IFC creation: Is this made from scratch or how is this implemented?
 - This part of the workflow is not really part of the approach. The IFC file is important, how it is created is independent of the presented approach.
 - [Goncal] In my experience the creation of IFC files from point clouds is not good, what is your experience?
 - Main activity on CAD enrichment, application of IFC only due to available converters for glTF and LBD
- [Mads]:-
 - LBDServer project as a platform for student projects or similar. Modular app structure can be extended
 - More extractors and converters can be implemented

- [Georg]: Do you require reasoning?
 - Not yet but for instance for SHACL validation that would be interesting
 - Suggestion for Blazegraph if no reasoning needed

Outlook by jereon:

- Virtual association on driving the development
- Solid extension
- ...
- BlazeGraph database, open license model:
<https://github.com/blazegraph/database>

Recall of WoT Exchange

- W3C WoT WG on Wed 18 Nov 2020
- We agreed that both groups should collaborate and provide examples how BOT and WoT Thing Description (TD) can be combined to locate things in buildings.
- The current effort is targeted at releasing a recommendation note with the described examples.
- Follow up call on 10 December, joined by Edison and Hervé

Next Call

- [15/12/2020, Tuesday, 16:00-17:30@UTC](#)

We are interested in getting suggestions from the community about potential agenda items for the following calls. Please send your suggestions to public-lbd@w3.org, whether you have a short presentation to bootstrap the discussion, and an approximate duration you think the discussion will last.

Previous minutes

<https://www.w3.org/community/lbd/meeting-minutes/>