

## Attendees:

- Georg Ferdinand Schneider (Individual CLA but affiliated with Schaeffler)
- Mathias Bonduel (KU Leuven)
- Alberto Giretti (univpm - Italy)
- Sjoerd Rongen (Taxonic)
- Mads Holten Rasmussen (Niras)
- Sylvain MARIE (buildingSMART France)
- Gonçal Costa (LaSalle University)
- Rui Ma ( Tongji University & City University of Hong Kong)

## Date and time

- 19/05/2020
- 17:00 - 18:30 CEST

## Agenda (tentative)

1. Introduction
2. BOT Definitions revision
  - Site: <https://github.com/w3c-lbd-cg/bot/issues/54>
  - Building: <https://github.com/w3c-lbd-cg/bot/issues/65>
  - Interface: <https://github.com/w3c-lbd-cg/bot/issues/71>
  - Storey: <https://github.com/w3c-lbd-cg/bot/issues/66>
  - hasSubElement: <https://github.com/w3c-lbd-cg/bot/issues/47>
  - Revised labels and descriptions <https://github.com/w3c-lbd-cg/bot/pull/73>
3. BOT Alignment revision
  - BOT2BRICK

## Minutes

1. Introduction
2. Organisational
  - Current Calendar invite provided by W3C is not bi-weekly
  - **ACTION [Georg Schneider]:** Change invite to bi-weekly
3. BOT Definitions revision
  - **Site:** <https://github.com/w3c-lbd-cg/bot/issues/54>  
■ **ACCEPTED**
  - **Building:** <https://github.com/w3c-lbd-cg/bot/issues/65>  
■ **ACCEPTED**
  - **Interface:** <https://github.com/w3c-lbd-cg/bot/issues/71>  
■ A bot:Interface is a part of the world with a spatial extent, that is common to some zones and elements. It allows to describe the boundary between two building

elements, two zones or a building element and a zone. It can be used for qualification of the topological connections between these pairs. An example is the qualification of the heat transmission area between a zone and a wall covering multiple zones.

- Definition is found to be too specific, more generic proposal is elaborated
- Mathias: bot:interfaceOf schema:rangeIncludes bot:Element , bot:Zone  
**RESOLUTION:** Add statement above
- Comment by Sylvain:
  - Connection between systems?
  - Answer by Mads: A pipe has several interfaces to zone it is intersecting  
Suggestion -> interfaceOf add a schema:domainInclude bot:Zone, bot:Element  
Interface -> "Modelling the connection between a topological element with an interface"  
Comment Alberto: interface as boundary, interface as connectedness of system  
Mads: two or more elements can be connected  
Mads: not necessarily a geometry  
Interface can be line or point  
Mathias: bot:interfaceOf schema:rangeIncludes seas:System?  
Mads: should not be restricted, only one of the connected things should be a bot:Element or bot:Zone
- 
- A generic concept to qualify the relationship of two or more things in the world, where at least one is a building element or zone. Examples:
  - Qualification of heat transmission between zones through one or more building elements. This includes one-dimensional (surface) heat losses from one zone to another through a single building element, a two dimensional (line) loss from one zone to another through the connection in which the two elements meet or a three dimensional (point) loss from one zone to another through the connection where three elements (typically two walls and a slab) meet.
  - Connection of an electric device to the electric system of a building.
  - 
  - A door between one room and another.

1D heat loss example:

# TBOX

xx:HeatTransmissionSurface	rdfs:subClassOf	bot:Interface .
xx:representsElement	rdfs:subPropertyOf	bot:interfaceOf .
xx:facesInterior	rdfs:subPropertyOf	bot:interfaceOf .
xx:facesExterior	rdfs:subPropertyOf	bot:interfaceOf .

# ABOX

<hts1> a xx:HeatTransmissionSurface .

```

<wall1> a bot:Element .
<room123> a bot:Zone .
<outdoor> a bot:Zone .
<hts1> xx:representsElement <wall1> ;
      xx:facesInterior <room123> ;
      xx:facesExterior <outdoor> .

```

-> Comment by Alberto: Are we loosing the spatial extent/ Boundary notion of BOT?

-> Answer: No, Interface is denoted generic. Hence, a concept can be specialised from bot:Interface to describe a boundary.

- COmment by Alberto: It seems to be awkward that there is no notion of a boundary in BOT.

-> Answer by Mathias: BOT's focus is on topology rather than geometry. Hence, the description of geometry, rather use regional connection calculus for this purpose (e.g. as in [https://en.wikipedia.org/wiki/OGC\\_GeoSPARQL](https://en.wikipedia.org/wiki/OGC_GeoSPARQL)).

**ACTION:** Add to docs differentiation to RCC8 etc.

**ACTION:** Update BOT docs including B Complete examples

**Storey:** <https://github.com/w3c-lbd-cg/bot/issues/66>

A part of the physical world or a virtual world that is inherently both located in this world and having a 3D spatial extent. A bot:Storey is contained in one or more buildings, and is intended to contain one or more spaces that are horizontally connected. Storeys of a building are connected by means of vertical connections such as elevators and stairs. A bot:Storey encompasses both zones above and below ground, for example, a building with 21 floors above ground, one ground floor and 3 basements is equal to the sentence: A building has 25 instances of bot:Storey.

- **Accepted**
- **hasSubElement:** <https://github.com/w3c-lbd-cg/bot/issues/47>
  - **ACCEPTED**,
  - property chain and transitivity postponed to bot v0.4.0
- Revision of bot:**interfaceOf** property
  - also update bot:interfaceOf text definition "Relationship between an interface and its adjacent zone(s) and/or element(s)." => "Relationship between an interface and another thing (building zone, element or something else)"
- Revised labels and descriptions <https://github.com/w3c-lbd-cg/bot/pull/73>
- -> Revision after editing new
- Its added at the bottom of file

#### Workflow:

- Add new definitions to spreadsheet, update translations do one big merge into GH  
Comment by Mathias: -> We need to ensure, quality of the definitions is good  
**ACTION** Georg: Check lock column in spreadsheet, english

#### 4. BOT Alignment revision

- BOT2BRICK

RECAAlignment suggestion (real estate core):

<https://github.com/MadsHolten/bot/blob/master/RECAAlignment.ttl>

- -> bot:Space instead of bot:Room
- 

### Next Call

- 02/06/2020, Tue, 16:00-17:30@CEST/ 7:00-8:30@PDT/ 14:00-15:30@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](mailto: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://docs.google.com/document/d/1eHCjAWFDuFOyEScOP-LAnzXo6\\_VYWUC6oe6qB3S9saw/edit](https://docs.google.com/document/d/1eHCjAWFDuFOyEScOP-LAnzXo6_VYWUC6oe6qB3S9saw/edit)