

Meeting #03

Machine Readable Information Delivery Specifications

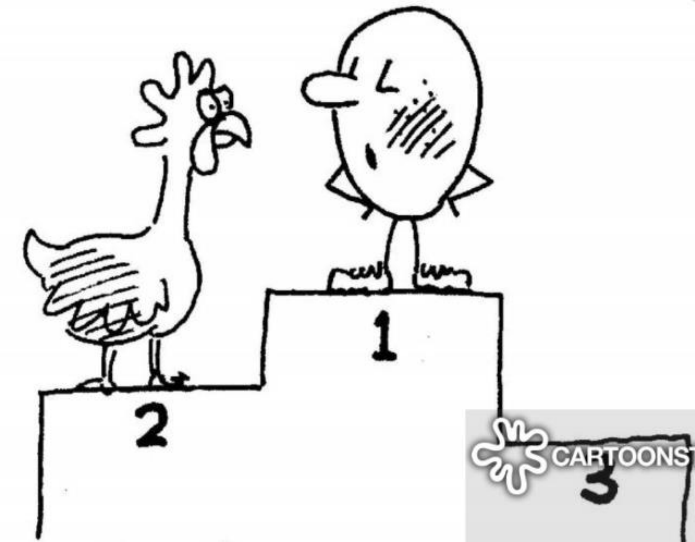
AKA “Information Delivery Specification (IDS)”

Agenda bSi IDS meeting #03

1. Short update
2. Meeting groundrules
3. Recap last meeting
 1. LOIN framework by Marzia/Espen (10 min)
 2. Use-case pitches (7x 10min)
 3. MS Teams
4. Ideas presentations developers
5. Next session #04

1. Short update

- Several new group members – put a cap on team members?
- Even more (written) commitment already!



2. Meeting Ground Rules

- Use-case pull instead vs solution push
- Only people that speak have their camera + mic ON
- All other people that DOT NOT speak have their camera + mic OFF
- People can speak for a max of 2 minutes
- Respect each others use-cases, perspective and vision
- ...

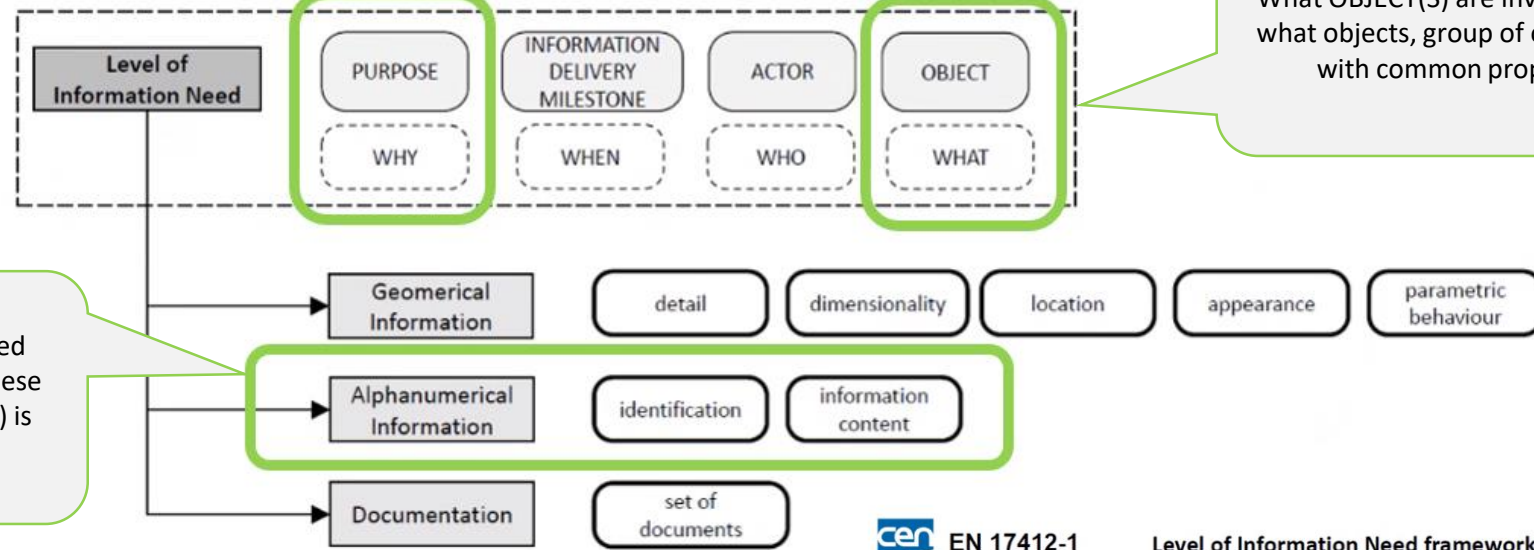
3.1. Recap: LOIN framework

'Methodology' for
use-case pitches

What is the purpose of the use-case – why
does it matter?

What OBJECT(S) are involved – from the IFC file,
what objects, group of objects, sub-sets, objects
with common property so and so, etc.

What Alphanumeric Information is needed
from these objects – how do you identify these
objects? And what Properties (information) is
needed from these objects?



3.2. Recap: Use-case pitches

- ILS O&E : Jeffrey Truijens
- UK : Andrew Knight
- Estonian government : Jaan Saar
- PlanBIM : Paulina Godoy
- Deutchland : Jan Tulke
- ?? : Dion Moulton
- Cyrille Pennavaire: Limestone example

After every use-case pitch 5 min questions from Software developers group

3.3 Recap: MS Teams environment

The screenshot displays the Microsoft Teams application interface. On the left, a sidebar lists various teams under the heading 'Uw teams'. The 'Algemeen' team is selected and highlighted. The main area on the right shows the chat history for the 'Algemeen' channel. The chat includes a welcome message from 'jaan.saar (Gast)' and a message from 'Pennavaire, Cyrille' sharing a video recording of a 'buildingSMART Information Delivery Specification (IDS) Kick-off' meeting. Below the video, there are two calendar event cards for 'bSi IDS project - meeting #03' and 'bSi IDS project - meeting #04'. At the bottom of the chat area, there is a button labeled 'Nieuw gesprek'.

Teams

Uw teams

- BIM
- Algemeen
- IDS
- Model KanBan
- BIM Focus Projecten
- Algemeen
- 3D bouwplaats
- ok Hamburger
- BIM Ladder
- Champions program Digitaal Bouwen
- Landelijke BIM-Coördinatiedagen
- DMS-Wonen-Beheer
- Woonconcept Configurator
- BIM Woonconcept
- bSi IDS project
- Algemeen
- Developers
- TotDn IDS
- Lid worden van een team of een te...

Algemeen Posts Bestanden Plan Board +

Team 45 gasten Vergaderen

technical.buildingsmart.org

jaan.saar (Gast) 19-11 12:20
Great to be here 😊

Beantwoorden

Pennavaire, Cyrille 19-11 12:19 Bewerkt
bSi IDS project Meeting #01 recording you can find here:
<https://vimeo.com/466257037/8c99ab1b41>

buildingSMART Information Delivery Specification (IDS) Kick-off
Kick-off meeting of the Information Delivery Specification buildingSMART project. Recorded on October 8th, 2020

vimeo.com

5 antwoorden

Beantwoorden

Pennavaire, Cyrille 19-11 13:17
Een vergadering plannen

bSi IDS project - meeting #03
woensdag 2 december 2020 om 14:00

Beantwoorden

Pennavaire, Cyrille 19-11 13:21
Een vergadering plannen

bSi IDS project - meeting #04
woensdag 16 december 2020 om 14:00

Nieuw gesprek

4. Ideas presentations developers

Homework for software developers:

- 'sketch' out ideas...format...structure
- Present them meeting #03, #04, etc.
- Discuss
- Agree on data format
- Agree on data structure

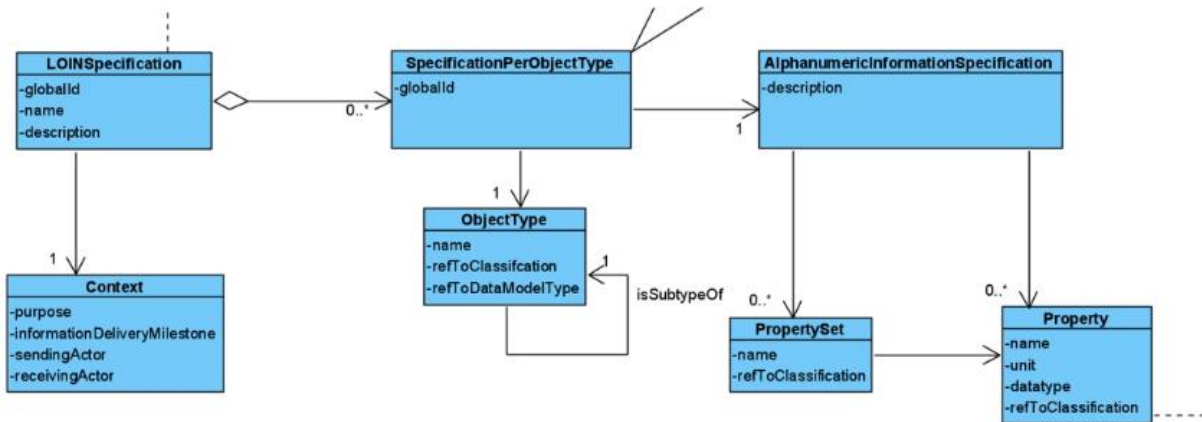


Arie

Proposition

- Strict separation between instance and type objects
- Definition from domain viewpoint, not IFC
- Use fixed unit for every property
 - Mixed units costs NASA a \$123M satellite, so they stopped with it
- Mapping on different IFC versions (IFC2x3, IFC4 and later IFC5)
- Do not map the units to IFC measures, it is too complex
- Think about local ID's, like in Etim
- Allow translations, the end user should work with it
- Use Etim like XML format, but no XSD
- Start with simple properties (including enumerations)

André



```

<?xml:stylesheet type="text/xsl" href="http://www.w3.org/2001/XMLSchema.xsl" >
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="LOINSpecification">
    <xs:complexType>
      <xs:sequence>
        <xs:element type="xs:string" name="description"/>
        <xs:element name="context">
          <xs:complexType>
            <xs:simpleContent>
              <xs:extension base="xs:string">
                <xs:attribute type="xs:string" name="purpose"/>
                <xs:attribute type="xs:string" name="informationDeliveryMilestone"/>
                <xs:attribute type="xs:string" name="sendingActor"/>
                <xs:attribute type="xs:string" name="receivingActor"/>
              </xs:extension>
            </xs:simpleContent>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="specificationPerObjectTypeList" maxOccurs="unbounded" minOccurs="0">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="objectType">
          <xs:complexType>
            <xs:simpleContent>
              <xs:extension base="xs:string">
                <xs:attribute type="xs:string" name="name"/>
                <xs:attribute type="xs:string" name="refToClassification"/>
                <xs:attribute type="xs:string" name="refToDataModelType"/>
              </xs:extension>
            </xs:simpleContent>
          </xs:complexType>
        </xs:element>
        <xs:element name="documentationSpecification" minOccurs="0">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="requiredDocument">
                <xs:complexType>
                  <xs:simpleContent>
                    <xs:extension base="xs:string">
                      <xs:attribute type="xs:string" name="type"/>
                      <xs:attribute type="xs:string" name="purpose"/>
                      <xs:attribute type="xs:string" name="content"/>
                    </xs:extension>
                  </xs:simpleContent>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="alphanumericInformationSpecification" minOccurs="0">
          <xs:complexType>
            <xs:sequence>
              <xs:element type="xs:string" name="description"/>
              <xs:element name="propertySets">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element name="properties" maxOccurs="unbounded" minOccurs="0">
                      <xs:complexType>
                        <xs:simpleContent>
                          <xs:extension base="xs:string">
                            <xs:attribute type="xs:string" name="name"/>
                            <xs:attribute type="xs:string" name="unit"/>
                            <xs:attribute type="xs:string" name="datatype"/>
                            <xs:attribute type="xs:string" name="refToClassification"/>
                          </xs:extension>
                        </xs:simpleContent>
                      </xs:complexType>
                    </xs:element>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
  
```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes">
<LOINSpecification globalId="94f5e8c2-1e63-4244-6e93-0dd8f3165107" name="LOIN01">
  <description>Level of Information Needs for visualization</description>
  <context purpose="Visualization" informationDeliveryMilestone="Preliminary Design" sendingActor="Architect" receivingActor="Client"/>
  <specificationPerObjectTypeList globalId="99b37edd-e108-4601-91d4-abfbfd069963">
    <objectType name="Site" refToClassification="Classification101" refToDataModelType="IFC"/>
    <documentationSpecification>
      <requiredDocument type="Survey drawing" purpose="Evaluation" content="Survey Data"/>
    </documentationSpecification>
    <alphanumericInformationSpecification>
      <description>Site object alphanumeric information</description>
      <propertySets name="Identification" refToClassification="Classification03">
        <properties name="Address" unit="" datatype="String" refToClassification="Classification02"/>
        <properties name="GEO-Location" unit="Coordinates" datatype="String" refToClassification="Classification08"/>
      </propertySets>
    </alphanumericInformationSpecification>
  </specificationPerObjectTypeList>
  <specificationPerObjectTypeList globalId="8bae44fe-b9ab-462b-9112-2ee12d5381fb">
    <objectType name="Wall" refToClassification="Classification16" refToDataModelType="IFC"/>
    <geometricSpecification>
      <detail>L3</detail>
      <dimensionality>D3</dimensionality>
      <location>Relative</location>
      <appearance>Textures</appearance>
      <parametricBehaviour>ParametricGeometry</parametricBehaviour>
    </geometricSpecification>
  </specificationPerObjectTypeList>
</LOINSpecification>
  
```

▪ a simple example

Thomas

Open reference implementation



```

<rule>
  <selection>
    <entity>IfcWall</entity>
    <classification>
      <resource>n1Sfb</resource>
      <value>21.22</value>
    </classification>
  </selection>
  <requirement>
    <property>
      <pset>MyProperties</pset>
      <name>Firerating</name>
      <value>
        <xs:restriction base="xs:string">
          <xs:enumeration value="30" />
          <xs:enumeration value="60" />
          <xs:enumeration value="90" />
        </xs:restriction>
      </value>
    </property>
  </requirement>
</rule>
  
```

“Applicability”

facet

xsd

Maybe there should be explicit <and>

<selection> and <requirement> use interchangeable concepts *(check with use cases)*

```

<rule>
  <selection>
    <entity>IfcWall</entity>
  </selection>
  <requirement>
    <classification>
      <resource>n1Sfb</resource>
      <value>21.22</value>
    </classification>
  </requirement>
</rule>

<rule>
  <selection>
    <classification>
      <resource>n1Sfb</resource>
      <value>21.22</value>
    </classification>
  </selection>
  <requirement>
    <entity>IfcWall</entity>
  </requirement>
</rule>
  
```

NB: Meaning here is not the same valid $\equiv A \rightarrow B$ and valid $\equiv B \rightarrow A$

5. Next meeting #04 : workshop (16/12/20)

- Workshop: with presentors: Arie, André, Thomas
- Include software implementors: Pasi, Peter M., Jiri, Sergey
- Claudio, Matthias, Peter K.
- Change of time slot just for 16th December: 12.00-14.00