COBIE and BIM

construction operations building information exchange

and

building information modeling

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BIM Vendors Process

• How does BIM work with COBIE?
• How does COBIE work with BIM?
Refurbishment
• Portfolio and Asset Management and Early Design
  – Collaboration with IAI NA Chapter
  – Capturing ‘demand’ at pre-design stage
  – Capturing ‘supply’ performance for comparison with demand
  – Information required at the briefing stage

Data Stamps can be used to summarize key facts about assets (demand/supply)
Capability is captured in IFC Property Sets
HITOS College in Tromsø

IFC pilot-project

5000 m² newbuild
## COBIE and IFC

<table>
<thead>
<tr>
<th>Location:</th>
<th>COBIE</th>
<th>buildingSMART</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>02 Facility, 03 Floor, 04 Space</td>
<td>Ifc Spatial Structure</td>
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<thead>
<tr>
<th>Instance:</th>
<th>COBIE</th>
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<tbody>
<tr>
<td></td>
<td>07 Component</td>
<td>Ifc Element</td>
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<tr>
<th>Typing:</th>
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<th>buildingSMART</th>
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<tbody>
<tr>
<td>Product Data</td>
<td></td>
<td>Ifc Type Product</td>
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<tr>
<td>06 Register Other requests</td>
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<th>Submittal request:</th>
<th>COBIE</th>
<th>buildingSMART</th>
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<tr>
<td></td>
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<td>Ifc Project Order</td>
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checks

- **Schematic Design (SD) Deliverable**
  - Spatial Compliance (Program) Check
  - Massing Check
  - Circulation Check
  - Fire Compliance Check
  - Security Check
  - Sustainability Check

- **Design Development (DD) Deliverable**
  - As before plus…
  - Functional Checks
  - System Checks

- **Construction Document Deliverable**
  - As before plus…
  - Collision Detection Quality Assurance
  - Required Construction Details
  - Materials, Products, Equipment Specification Checks

- ….
assets

• what is an asset?
• what assets are to be managed?

• anything that shares a product definition.
• in COBie this is a registered requirement for submittal of ‘product data’.
• In buildingSMART this is a ‘type definition’.
What specifies Types?

- Classification
- Standards
- Actors & Roles

Type:
- Ownership
  - Library Reference
  - Owner History
- Name
  - Description
  - GUID
- Representations
  - Symbolic
  - Shape

Property Sets:
- Prescriptive
- Performance
Where do Types come from?
What are Types for?

- Design management
- Estimating & purchasing
- Asset management
- O&M