Intro – James goes here
History of buildingSMART

• Started in 1994 as the IAI
• Autodesk, HOK, ATT, Carrier, Primavera, Graphisoft, Tishman, Timberline... others
• Became buildingSMART International
buildingSMART Products/ Standards

- IFC
- BCF
- Data Dictionary
- Others

- Standard Representations (Schemas)
- Not standard means of working
Just like cats

What's Hot On HGTV

Flip or Flop
All New! Thursdays 9/8c

Buying and Selling
All New! Wednesdays 9p | 8c

Beachfront Bargain Hunt
Sundays 8p | 7c

Tiny House Hunters
All New! Mondays, 9pm | 8c

Fixer Upper
Catch Bonus Footage:
Tuesdays at 9pm | 8c

House Hunters Renovation
All New! Saturdays 10p | 9c

#BIMForumED  Twitter: @gschleusner
Jira for 3D Coordination
Hi, this is BIMForumED. Let me help you build.

#BIMForumED

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Why HOK cares about open standards

• We use 10s/ 100s of tools
• Want to use the best tool for the job
• Buy Software to create and edit our data
• Makes the barrier to entry to build tools much lower
Why others support

• Governments
  • Largest pool of bidders for work
  • Open Access to their Data
  • Capabilities not found in a single tool

• Airport Example
  • Schiphol – Building Room

• A bit about Rooms
It started here
Asset management = responsible for entire life cycle

What is an ‘asset’?

An asset is a physical and replaceable entity with value and a Life Cycle, including the related data
Good data = Good decisions

- Entire (Asset) life cycle In Control
- Clear and transparent decision making,
- One truth
- Clear roles and responsibilities,
- Data, Data, Data / Information, Information
Why openBIM

- We do not want to prescribe specific software
- Many different parties involved with different design software
- Use data in various applications
- Consistent data exchange
- Information in each phase Uniform, consistent and up to date
- Efficient design, construction and operate process
Interested parties

- Incheon airport
- Paris
- Beijing
- Copenhagen
- Oslo
- Heathrow
- Madrid
- Los Angeles
- Brisbane
- Italy
- Turkye
Why Do Software Vendors Support Open Standards?
BIM is BIG!

Lars Bjørkhaug, SINTEF
Byggforsk
Illustrations: Statsbygg
Arkitektstudio AS, Olof Granlund.
NBLN Stanford University

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Twitter: @jw_ouellette
...bigger than any ONE vendor...

2010 Global AECO software market
~US$2.0B *

- Autodesk: 48%
- Nemetschek: 32%
- Bentley: 10%
- Tekla: 7%
- Others: 3%

* Nemetschek AG estimates

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Architectural to Structural Model Data Exchange

How many API-connections...
...13? ...20? ...30? ...>100?

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Content- vs. Application-centric Data Exchange

One-to-One

One-to-Many

Many-to-Many

✓ Less work
✓ Lower Threshold
✓ Larger Ecosystem

Application-centric (API)

Content-centric (IFC)

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We are already immersed in interoperability...
IFC: Vendor Support

135+ developers/vendors...

...200+ applications/utilities!!
# IFC: Vendor Support

## IFC Compatible Application Database

Applications / Versions

Functional Categories

Vendors

Details & Links

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<td>modelviewer</td>
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Twitter: @jw_ouellette

Website: [www.buildingsmart-tech.org/implementation](http://www.buildingsmart-tech.org/implementation)
## IFC: Software Certification

**Certified Software**

http://buildingsmart.org/compliance/certified-software/

### 20 Vendors, 22 Applications

- **Nemetschek Group (7)**
- **Autodesk (3)**
- **Trimble (2)**
- **Glodon (2)**
- **Bentley**

...
What's Happening Now

Mini International Update

• A lot of work around horizontal infrastructure
  • Roads, Bridges, Rail, Tunnel
  • Standardizing the Schema across countries and domains
  • FHA, China, France, Korea, UK, Singapore

• Containers
  • Linked Data
  • More than the sum of parts
How will you be able to get involved

• Just starting the process of identifying Room representatives
  • Be able to join rooms
  • Take part in updates
  • Push forward new needs and ideas

• Goal is to have a clear path up and down to international
• Planned Aligned BIM Forum/ bSI Meeting in US
• Socializing LOD into International
Thanks