US Chapter Update
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BRIEF HISTORY OF buildingSMART

• International Alliance for Interoperability founded in 1995
• Goal of solving the “Tower of Babel” problem
• Re-branded as “buildingSMART” in 2008

The founding companies:

- Autodesk
- Archibus
- AT&T
- Carrier Corporation
- HOK Architects
- Honeywell
- Jaros Baum & Bolles
- Lawrence Berkeley Laboratory
- Primavera Software
- Softdesk Software
- Timberline Software
- Tishman Construction

http://buildingsmart.org/about/about-buildingsmart/history/

www.buildingsmart.org
BRIEF HISTORY OF buildingSMART

International Organization for Standardization
• “Great things happen when the world agrees”
• Liaison status in 2011

Open Geospatial Consortium
• Entered formal collaboration in 2013

ETIM International
• Worldwide classification for technical products
• Collaborative partnership signed Feb 2017
INTERNATIONAL COUNCIL

Australasia  Benelux  Canada  China  France  Germany

Italy  Japan  Korea  Malaysia  Nordic  Norway

Singapore  Spain  Switzerland  UK + Ireland  USA
“ROOMS”

- TECHNICAL
- BUILDING PROCESS
- INFRASTRUCTURE
- PRODUCT
- REGULATORY
Who will create the digitized building assets…?

MISSION:
Digitization of building assets and lifecycle processes for commercial and institutional organizations worldwide.
DIGITIZATION...

Paper Form  ➔  Digital Paper  ➔  Digitized

#BIMForumED  @jvandezande
DIGITIZATION...

• The data moves independently from the medium
• Can be analyzed, interpreted, and acted upon
Who will create the digitized building assets…?

MISSION:
Digitization of building assets and lifecycle processes for commercial and institutional organizations worldwide.
United States

• Act locally
• Engage politically
• To enable organizations, companies and individuals along the entire value chain

• Using BIM
• Professional Practice
• Regional Delivery
• User Outreach

International

• Identify international market needs
• Access to Open BIM initiatives
• Synchronize local and int’l activities

• Open BIM Schema (IFC)
• Data Dictionary
• Information Exchanges
WHAT IS OPEN BIM?

Industry Foundation Classes (IFC) is an ISO standard:

ISO 16739:2013
Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries

IFC Schema

Coordination
Design Transfer
Reference View

Model View Definitions (MVD)
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WHAT IS OPEN BIM?

BuildingSmart calls each bubble a “Model View”

- Structural Analysis
- Construction
- Visualization
- Bidding
- Fabrication
- Design
- Energy Analysis
ACTIVITY: IFC DEVELOPMENT

Domain Expansions:
• Infrastructure
• Geotechnical
• Landscaping
• Bridges
• Rebar
• Fabrication
• Energy Analysis
• Product Libraries

Format Expansions:
• Database formats (e.g. SQLite)
• Web formats (e.g. JSON)
• Linked data formats

Tools:
• Development
• Validation
• Collaboration

IFC 4.1 release announced at Standards Summit in Barcelona
IN THE WORKS

**IFC4 Design Transfer View v1.0** (final standard)

- Full geometric capabilities (advanced sweeps, B-rep, and CSG)
- Parametric profile definitions
- Material definitions
- Property set definition templates
- Element-based revision control
ACTIVITY: DATA DICTIONARY
IFC Alignment for AIR, RAIL & INFRASTRUCTURE

FRANCE  GERMANY  SWEDEN
KOREA  JAPAN  CHINA
LoX NORMALIZATION

"Level of <X>"

• Phase I of international effort
• USA + UK leading
• See "The Many Faces of LOD"
  • Blog post by Marzia Bolpagni
BUILDING PROCESS
TECHNICAL
OWNERS
INFRASTRUCTURE

Which room will you enter?

BIMForum.org/buildingSMART