Comparative Analysis of Existing BIM Guides

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For the purposes of this project, "Guides" refer to any documentation that has been published to support the end-user in applying standardized processes, procedures or technical requirements in Building Information Modelling.
Concept

• One-off development of guides
• Time-consuming to create effective and relevant guides
• Need for a degree of standardization
  • Organization of content
  • Scope of content
  • Referencing sources of information
• Terms and concepts not used consistently
• BIM implementation and end-user experience could be greatly enabled by a tool for guide creation and content population
Project’s 3-Level Concept:

BIM Guide document + Template Review for Metadata = Query Across Documents

+ Table of Contents Search Function = Framework Approach to BIM Guides

+ Text Search for Keywords = Made-to-Measure BIM Guides
A buildingSMART International Project

- International Working Group
- bSI for standards development piece
  - Terms
  - Common Table of Contents
- bSI for community and quality brand

[buildingSMART logo]
Metadata Template Review

• Way to compare guides ("it is what it is")
• Data collection activity (human element required to interpret)
• High-level, broad comparison:
  1. Audience
  2. Scope
  3. Technical
  4. Legal
  5. Reference Standards
Template: Part A – Document Overview

1. Document Details
2. Intended Use and Audience
3. Document Position by Type and Content
Template: Part B – Document Content

1. Project Definition and Planning
2. Technical Specifications
3. Implementation Processes
4. Supporting Tools
5. Legal Aspects
Template: Part C – Chapter Mapping

- Testing a Common Table of Contents
  - As a mapping methodology / functionality to compare content
  - To identify gaps in current available guidance
  - To identify common areas of sufficient coverage
Template: Part D – Terminology & Definitions

• Alignment with the buildingSMART Data Dictionary (bSDD) for terms

• Steps to do this:
  1. Identify key terms
  2. Determine if the same concept to a term already in the Data Dictionary
  3. Follow harmonization process if the same concept
  4. Enter new terms if concept is different
  5. Identify source of term definition, including language/country origin
OpenBIM Criteria

• To promote the use of open standards

…the main requirement, both in the daily inter-disciplinary exchange and at handovers to be openBIM (IFC or other buildingSMART Data Schemas). It is acceptable if the guide in addition requires proprietary formats for specific purposes that are not supported by current levels of implementation of open formats.
Using xWiki for the functionality desired

- Public and open platform
- Complex Search function
- Repository viewer
- Easy to interconnect additional functionality
  - Google Map
  - Mendeley
  - bSDD
  - Etc.
Map-enabled Searching

- Using Google Map
- Query function
- Visual picture of global representation
## Guide Mapping Matrix / Positioning Map

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Engaging Document Authors & Industry

• The end goal of the project is to be a useful resource and tool for industry.
  • Part of this is to engage with the published document authors and authoring organizations to provide:
    a) Awareness of the project
    b) Engagement in the review process
    c) Support for future guide version publication
    d) Feedback on continuing to deliver a useful resource and tool for industry
Project Team

- Australia: Neil Greenstreet
- Canada: Susan Keenliside
- Denmark: Jan Karlishoej
- Finland: Tomi Henttinen
- France: Sylvain Marie
- Korea: Ghang Lee et al.
- Norway: Steen Sunesen
- Switzerland: Mark Baldwin
- United Kingdom: Nick Nisbet
- United States: Deke Smith

*Work began under the Product Development Subcommittee (PDS) of NBIMS-US Version 3 (Chris Moor, Chair).
Activities we’re following:

**ISO 12911:2012**
- Framework for building information modelling (BIM) Guidance
  - Technical Spec
    - Structured
    - Computable
    - Testable

**Made-to-Measure Tool Concept**
- Norway
- Korea

**Copyright & IP Norms**
- A Prospectus and Copyright Release letter have been drafted to interface with document authors and authoring organizations
Discussion

• Many questions this project can help answer
• Highlighting BIM as a process
• Client-specific needs supported
• End-user acceptance
• The need for a degree of standardization within guidelines
• Guidelines use as a medium for education
Conclusions

• Each client feels they do things differently.
• Need to identify commonalities and standard pieces
• Identify ‘de facto’ standard content
• Critical to engage with industry (harmonization process + tool)
• Supports a framework where knowledge, skills and abilities can be developed and assessed
• A GLOBAL ANALYSIS WITH LOCAL APPLICATION
http://BIMGuides.vtreem.com

Thank You

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