P03 – Classifications and BIM

Status report ICIS DA 2016, Auckland
First draft – 2014-06-04

Final edition 2016-03-12
33 pages + Appendix 4 pages

To be accepted and distributed
Project team 2013-2016

Project leader: Gunnar Friborg (bips)
Temporary leader: John Gelder (former NBS)
Task team:
- Barbora Pospíšilová (URS Praha)
- Neil Greenstreet, Richard Choy (NATSPEC)
- Michelle Theauvette (DDN/NMS)
- Albert Müller (CRB)
- Forrest Grierson (Griersons Specifications)
- David Watson (Digicon Inf.)
- Sarah Delany, Paul Swaddle (NBS)
- Sebastian Goitowsky (GAEB)
- Bjørn Brundstad (Standard Norways)
- Heta Timonen, Pasi Hulkkonen (Rakennustieto)

Technical editor: Gunnar Friborg (bips)
The original scope

Problem statement:
Most classification tables of the construction industry today (and in the current ISO 12006-2 standard as Framework for classification of construction information) aims at classifying documents with contained information – and often for very specific parties, stages or documents of the construction lifecycle.

The construction industry moves towards a model- and data based data-handling and broader use and sharing of information (BIM) across the parties and the stages of the construction lifecycle.

How can contemporary classification support the new ways of working and the data-handling, and in which areas (of interest for ICIS members), will the application and use of such a classification be beneficial?
Target group

The report is for everybody involved within the construction sector that, on an expert level, is concerned with the use, the importance and nature of classification and identification in and with regard to BIM.
Some important topics:

- The survey about classification and rev. of ISO 12006-2
- Common language, terminology and definitions
- Involvement of other standards besides 12006-2
- Classification and properties
- Classification and Identification
- Applying classification in BIM
Executive summary
Introduction - The challenge of BIM to classification

1. BIM
1.1 Definitions of BIM
1.2 Objects and ISO 12006-2
1.3 Databases

2. Classification, defined language and structuring of information
2.1 The revision of ISO 12006-2
2.2 The international 2012 classification survey
2.3 Summary of survey results
2.4 Terms and definitions for concepts and classes
2.5 Object classes and classification tables
2.6 Type-of relations and the desired level of classification
2.7 Part-of relations, structure and identification
2.8 Combining classification and structuring
2.9 Object occurrences, types, instances and identifiers
2.10 Properties

3. Implementing ISO 12006-2
3.1 General requirements for BIM-ready classification systems

4. Applying classification in BIM
4.1 In general
4.2 Geometry and modelling
4.3 Structural and thermal simulation
4.4 Specification
4.5 Cost estimation, quantity take off and tendering
4.6 Manufacturer information
4.7 Timeline and programming
4.8 Mapping classification and buildingSMART Data Dictionary
I hope it will be useful and will be able to create debate and influence the thinking of classification and identification with BIM

Thank you for your participation and attention