

Executive Committee Meeting
Report from Development Team
19 Jul 06, NIBS Conference Room

1. Purpose of Development Team (3 May 06)

- a. To facilitate the creation of Industry Foundation Class (IFC) -based information exchanges for the Architect/Engineer/Constructor/Operator communities in support of buildingSMART.
- b. To adopt existing industry standards where applicable and assist in IFC-versioning.
- c. To identify intersecting industry standards and identify opportunities for collaboration.
- d. To prepare technical packages for the review and adoption by the NBIMS membership.
- e. To provide feedback to Scoping and other NBIMS committees about resources and timeframes needed to demonstrate and implement these standards.

2. Approach (3 May 06)

- a. To execute high-priority use-cases identified by the Scoping Committee.
- b. To incorporate related ongoing Development Team membership projects to ensure open access by all NBIMS committee members (and other stakeholders).
- c. To identify and work with existing standards bodies to create or adopt IFC translations.
- d. To develop standards utilizing a rational software engineering process, the Information Delivery Manual.
- e. To demonstrate capabilities of these exchange protocols through pilot tests.
- f. To prepare materials needed for implementation of developed standards.

3. Current Projects

All current projects represent data exchanges currently used or projects started prior to the creation of the NBIMS project. These projects have been integrated into the NBIMS effort to reduce agency/sponsor information exchange stove-piping.

- a. Construction Operations Building Information Exchange (COBIE).
 - i. NASA, NIST, and USACE (expected) funding. Bill East (ERDC) lead.
 - ii. Draft fact sheet
(http://nibs.opengeospatial.org/files/artifact_id=164)
 - iii. International Conference Proceeding
(http://nibs.opengeospatial.org/files/artifact_id=168)
 - iv. Jul 06 Meeting
(http://nibs.opengeospatial.org/files/artifact_id=163)
 - v. Pilot testing document review closes 21 Jul 06.
 - vi. Pilot projects expected at several NASA Centers and Ft. Lewis, WA.
 - vii. Pilot specifications for design-build, design-bid-build, and small renovation projects being prepared. Specs test current post-hoc survey and process-based capture.
 - viii. Reference standard, spreadsheet, IFC import/export, and model comparison efforts needed. Model comparison tool useful for future alpha-tests efforts based on existing CMU & NRCC projects.
 - ix. COBIE report, currently in draft, will be released upon completion of IFC reference standard and pilot test. Report documents entire IDM process and expected level of detail needed for all NBIMS projects.
(http://nibs.opengeospatial.org/files/artifact_id=169)
 - x. IAI Industry Day Demos of use of COBIE. Scope for actual demos may include integration with equipment spatial layout.
- b. Code Checker
 - i. International Code Council & U.S. Department of State funding. Dave Conover (ICC) lead.
 - ii. Create imbedded tagging schema based on RuleML. Rule Markup Language. (<http://www.ruleml.org/>)

- iii. Draft code rule extraction example is provided at OGC.
(http://nibs.opengeospatial.org/files/artifact_id=169)
 - iv. Goal is to demonstrate review of building model for code compliance. A limited subset of code will be identified. Federal and State government supplements will be included in the demo.
- c. Preliminary Design
- i. Self-funded. Susan Nachtigall (ERDC) lead.
 - ii. IAI project AR-5
 - iii. Full use cases and business processes, based on pre-IDM approaches to use/extend/create IFC Views have been posted at OGC.
(http://nibs.opengeospatial.org/files/artifact_id=167)
- d. CIS/2 – IFC
- i. FY07 NIST funded. Robert Lipman (NIST) lead.
 - ii. IAI project ST-6 “CIS/2 – IFC Harmonization.”
(<http://www.coa.gatech.edu/~aisc/cisifc/> George Eastman)
(<http://cis2.nist.gov> Robert Lipman)
 - iii. The emphasis of this work has been to translate between the standards.
 - iv. NIST will begin in FY07 to identify specific business exchanges where IFC to CIS/2 and CIS/2 to IFC exchanges can be codified.
- e. ductXML
- i. Self funded. ASHRAE standard for ductwork fabrication. Supported by AutoDesk, others(?). Roger Grant (CSI) lead.
 - ii. Initial information gathered has been posted at OGC.
(http://nibs.opengeospatial.org/files/artifact_id=171)
- f. Scheduling
- i. Self funded. Lead not determined.
 - ii. Based on the existing “SDEF” format for the exchange of scheduling data
(<http://www.usace.army.mil/inet/usace-docs/eng-regs/er1-1-11/toc.htm>)
 - iii. While IFC has a rich ontology for the capture of tasks and resources, linking those resources to objects to provide for 4-D scheduling is difficult and time consuming.

- iv. The goal of this project is to identify the IFC-based exchange of 4-D schedules by mapping to and extending existing data exchange formats.

4. Coordination Activities

- a. Facility Handover Guide
 - i. OMSI
 - ii. Ft. Lewis, WA
- b. NBIMS Standard Package Requirements (*3 May 06*)
 - Upstream
 - i. Requirements of initial scoping package are becoming clear
 - ii. Requirement for business-cases not yet defined
 - Needed
 - iii. Standard templates for IDM process
 - iv. Example use of IDM (COBIE Draft Report)
 - v. Model comparison for use in alpha testing (and later)
 - Downstream
 - vi. Testing regime past demonstration
 - vii. Consensus process

5. Conclusions

- a. Initial Outcomes of NBIMS demonstrated at IAI in Nov. Progress based on interests of individual groups coming forward with business need and having that need molded into IFC-based exchange.
 - i. COBIE
 - ii. Code Checking
 - iii. Preliminary Design
- b. IDM methodology documentation needed to allow “non-analysts” to more fully understand and join in the process.
- c. Briefing (file name begins “P2”) contained in Jul 06 Meeting containing description of why IFC may be helpful for overview presentations.
(http://nibs.opengeospatial.org/files/artifact_id=163)

6. Recommendation

- a. Hosting on NIBS web site to raise awareness is critical. Information is starting to circulate and many people are confused by the multiple (often conflicting) views of BIM that are around.
- b. Standard “fact sheet” Needed. Recommend using COBIE Draft Fact sheet and moving through NIBS press release format.