IFC extension for Roads and Railways
Project summary for the Requirement definition

Version   4 – working draft
Date: December 15, 2015

Background

The InfraRoom of buildingSMART International assigned high priority in its work plan 2015 to the work item IFC Roads with the objective to coordinate and harmonize several efforts world-wide to provide IFC extensions that would be truly International and universally accepted.

A working group, together with an expert panel, worked in 2015 on a project summary. The working group concluded that Railways should be included in the scope. From then the name of the proposed standard is "IFC extension for Roads and Railways", in short IFC R&R.

The Project Summary was discussed in the InfraRoom at the Singapore Summit in October 2015 and well-received, though there was an expressed need to get a more detailed view on the scope and requirements. The following resolution was adopted: "The InfraRoom accepts the IFC Roads and Railways Project Summary with the following remarks: that the requirement definition and scope be further refined and funding sought".

Following up the Singapore Summit, the next step is to execute a project that delivers the refined scope and requirements, and also a definition of modules and budgets for development.

This document summarizes the work that is needed to provide the required deliverables andobtain formal acceptance, dissemination and funding for on-going development of the individual work module.

This project summary will be submitted for approval to the InfraRoom Steering Committee (IRSC) and the bSI Standard Committee Executive (SCE). After approval the work item IFC for Roads & Railways will take its first step as an official bSI project.

Objectives

- Make clear at what points in the process of developing and maintaining Infrastructure, the IFC R&R is needed and why
- Make clear what requirements should be placed on IFC R&R
- Make clear and justify the modularization of the standards work
- Give insight in the required development

Deliverables

A. Description of scope and use case
B. Description of the modularization

C. Description of the value proposition for every module
D. Specification of the requirements
E. General architecture (to be developed with the overall architecture working group)
F. Road map and development plan
G. Budget estimate for every module
H. Support from stakeholders and expert panel
I. Compliance with Overall Architecture

Approach

- Educate expert panel members on documenting requirements in order to collect regional requirements efficiently.

- Takes into account previous and on-going work of Infrastructure room members, especially the KICT IFC Roads project, the work of the China Railways BIM alliance, the IFC Bridge project and OGC's InfraGML model

- Coordination with the Overall Architecture project leading to a common view on overall architecture, modules and scope (this includes the coordination with IFC alignment)

- Reviews by expert panel

Work schedule

The main work packages (WP) to fulfill the scope of work are:

WP1 – Work plan and organization

- Develop project execution plan
- Organize project team,expert panel, and regional teams for requirement development

WP2 – Requirement analysis

Note that the work already completed, particularly the work of KICT and the China Railways BIM Alliance, will form a strong foundation for this Work Package.

- Instruct expert panel members on collecting and documenting requirements
- Analyze the requirements of existing data exchange processes (international feedback on IDM definitions)
- Capture and document user scenarios and use cases
- Create process maps and exchange requirements from the user requirements
- Document in detail who the users are for IFC R&R and for what purpose the IFC R&R data is needed
- Prepare documentation for reviews
- Review with expert panel and relevant standardization bodies
- Prepare report on analysis of requirements
- *Output*: deliverable A and D

WP 3 – Modularization

- Develop solution architecture for IFC R&R
- Define modules and interfaces
- Prepare value proposition for every module

- Coordinate with Overall Architecture project
- Prepare documentation for reviews
- Review with expert panel
- Prepare report on solution architecture
- *Output:* deliverables B, C, E and I

WP4 – Road map and development plan

- Develop Road map for development of IFC R&R
- Prepare development plan with budget estimate for every module
- Review with expert panel
- Prepare report on road map and development plan
- *Output*: deliverable F and G

WP5 - Dissemination

- Facilitate panels
- Inform user community, blogs, e-mail groups and social media
- *Output*: deliverable H

WP6 – Project management

- Manage the project team and work
- Report to the Project Steering Committee

Time schedule

- Lead time half year, end result available Q2 2016
- Refined draft of deliverables A_D, F & G to be available for discussion at the bSI Summit in April 2016

Governance

The project will follow the IR Governance of projects and the bSI Standards process

- Project is executed by buildingSMART International
- Project has a project leader and a project team
- Project leader reports to the InfraRoom Project Steering Committee
- Stakeholders are represented in Project Steering Committee

Budget and resources

- Needs a small project team and expert panel
- The project cost is estimated at 48 kEUR
- The project costs cover man-hours and expenses of the project team.
- Contributions to expert panel and steering group are not charged to the project budget

Financing

- The project is funded by contributions from stakeholders
- Commitments for resources and funding be established by a MOU

/End of project summary