

Development Progress on IFC for Infrastructure

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Learning Objectives

- Learn about progress on the infrastructure projects being run by buildingSMART InfraRoom.
- See how digital transformation for infrastructure presents a challenge and opportunity for designers, contractors, and owners.
- Learn how new infrastructure schemas are being implemented in Autodesk software.
- Discover use cases and workflows that can benefit from adopting an open standard infrastructure schema.

Description

BuildingSMART International describes itself as the industry body driving the digital transformation of the built-asset industry, committed to the creation and adoption of open standards and solutions for infrastructure and buildings. While the buildings sector has been relatively well served by buildingSMART's Industry Foundation Class (IFC) standards for more than 10 years, the infrastructure industry has had limited support. A program of developments under the buildingSMART InfraRoom is preparing new schemas for roads, bridges, ports, and waterways and tunnels, with the RailRoom preparing a new schema for rail working on the harmonization of the common asset types, testing, and deployment project. Autodesk has supported the development of the new schemas that are scheduled for release in 2021. This presentation will highlight the InfraRoom projects, industry engagement activities, and some early concept implementations of schemas within Autodesk software.

Speaker(s)

Marek holds a degree in Civil Engineering, is a Chartered Engineer, Chartered IT Professional, Fellow of the British Computer Society, Fellow of the Institution of Civil Engineers (ICE) and a Member of the Chartered Institution of Civil Engineering Surveyors (CICES). Marek sits on expert panels within the CICES, the ICE, the UK BIM Alliance, the buildingSMART InfraRoom Project Steering Committee and the British Standards committee that authored UK BIM standards and the ISO 19650 standards series.

Tiina works as a Development Manager and Infra BIM expert within Ramboll. Tiina is the Chair of the buildingSMART International InfraRoom Steering Committee and has previously worked as a BIM champion within Väylä the Finnish Transport Infrastructure Agency.

Invitation to Participate in buildingSMART and IFC 4.3 Development

- Follow the efforts of the buildingSMART InfraRoom
<https://www.buildingsmart.org/standards/rooms/infrastructure/>
- Join buildingSMART International or your local Chapter
<https://www.buildingsmart.org/about/get-involved/membership-and-benefits/>
- Perhaps participate in the IFC 4.3 deployment programme
<https://www.buildingsmart.org/standards/calls-for-participation/ifcroad/>
- Use Infrastructure and Rail modelling tools e.g. Civil 3D, InfraWorks or Revit to create suitable BIM candidate files
- Undertake your own trials using:
 - Revit Toolkit on Github
 - Dynamo with Revit and Civil 3D
 - Autodesk Forge
 - Project Explorer for Civil 3D
- Test IFC 4.3 when solutions become available!