

Deliverables Summary

InfraRoom

Project: IFC Infrastructure for Ports & Waterways (IPW)

Work Package: WP7 – Project Management

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CONTENTS

2	Introduction & Summary	3
3	Deliverables	3
3.1	Project Execution Plan	3
3.2	Requirements Analysis Report	4
3.3	IPW Platform Independent Model	4
3.4	IPW UML Model Report	4
3.5	IPW Modelling Guidelines	4
3.6	IPW Prototype Viewer	4
3.7	IPW Example Models & Data	5
3.8	IPW Candidate Standard	5

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2 INTRODUCTION & SUMMARY

The purpose of this summary is to outline the planned and expected deliverables at the end of the IFC for Ports & Waterways (IPW) project and the form of the delivery that will be submitted as the outcome at the project's conclusion. Table 1 gives a brief summary of the deliverables of the IPW project.

Table 1 Deliverables Summary

Id	Deliverable	Work Package	Status	As Of
D0.1	Project Execution Plan	WP0 Project Planning	FINAL	2018.09.17
D2.1	Requirements Analysis Report	WP2 Requirements Analysis	FINAL	2019.09.25
D2.2	IPW Platform Independant Model	WP2 Requirements Analysis		
D3.1	IPW UML Model Report	WP3 IFC Schema Extension	FINAL ¹	2020.02.07
D3.4	IPW IFC Extension	WP3 IFC Schema Extension	CS ²	--
D3.5	IPW Model View Definitions	WP3 IFC Schema Extension	REMOVED ³	--
D4.3	IFC Extension Documentation	WP4 Documentation & Guidelines	CS ²	--
D4.7	IPW Modelling Guidelines	WP4 Documentation & Guidelines	IN DEV	2020.02.24
D5.1	IPW Prototype Viewer	WP5 Software Deployment	IN DEV	2020.02.24
D5.2	IPW Example Models 7 Data	WP5 Software Deployment	IN DEV	2020.02.24
D5.4	IPW Deployment Plan	WP5 Software Deployment	CS ²	--
D7.3	IPW Candidate Standard	WP7 Project Management	IN DEV	2020.02.24

1. The IPW UML Model Report as a standalone document covers only domain specific concepts with common concepts, other domains & UML modelling guidelines referenced as Annexes. Under Common Schema the IPW UML Model Report forms Part 4 of the bSI UML Model Report forming a single submission to the Standards Committee Executive for acceptance as a candidate standard.
2. Through Common Schema the current bSI extension projects (IPW, Road & Rail) agreed to collaborative develop 3 specific deliverables instead of developing and releasing fragments that would need combining These deliverables are the IFC data schema, IFC Documentation & a deployment plan for a collaborative deployment project.
3. The use and role of model view definitions (MVDs) within BuildingSMART is under review and consideration in relation to issues and competing views that have been raised over recent projects. Therefore, it was decided to remove this deliverable in favour of resolving the future direction of this concept.

3 DELIVERABLES

This chapter provides summary descriptions of the deliverables expected within the IPW project.

3.1 PROJECT EXECUTION PLAN

The full Project execution plan providing finalised details of work packages, deliverables, work schedule, budget, project team and project organisation in terms of the responsibilities, reporting

structure and governance. This document is updated to reflect the changing project setup and new team members as the project progresses and evolves.

3.2 REQUIREMENTS ANALYSIS REPORT

This report provides an analysis of the requirements of the planning, design, construction, operation and maintenance of a marine facility/complex. Using example models, documentation and domain experts, typical user scenarios and use cases were captured and documented. Then used to identify the final scope of the extension. Existing data exchange standards were considered and are highlighted in the report, and engagement with concurrent BuildingSMART projects was. The methods of the Information Delivery Manual (IDM) were used to analyse example projects, to create process maps and exchange requirements from identified user requirements or information exchanges. Providing a documented reasoning for the development of new locational, physical and process entities, and documenting the domain specific use.

3.3 IPW PLATFORM INDEPENDENT MODEL

The IPW platform independent model is technology agnostic representation of the concepts of the domain. For IPW this is formed from the definition of 3 interconnected schemes.

- Taxonomy – a hierarchal classification of concepts into a generalisation structure
- Meronomy – a graph structure providing definitions of typical & possible aggregated structures that form concepts at different levels within a project hierarchy.
- Properties – the collection and definition of properties which are them mapped to their relevant concepts within the scheme.

3.4 IPW UML MODEL REPORT

The IPW UML Model Report documents the domain specific concepts within the IPW Platform Dependant Model (PSM-IFC). This includes diagrams and technical explanations of all domain concepts and reference to common and other domains via annexes.

3.5 IPW MODELLING GUIDELINES

The IPW Modelling guidelines provide documented examples, guidance and recommendation on the application of the IFC extension in practice on real world projects. The aim is to guide users on the best practice for representing different domain facilities & elements to utilise IFC functionality across different projects and actors in a uniform and interoperable manner

3.6 IPW PROTOTYPE VIEWER

A prototype viewer (either as Desktop or Cloud based) to implement the new IFC extension. Minimum functionality will be parsing and viewing of all domain extensions with the hope to add some further functionality around property sets and/or conversion between IFC versions.

3.7 IPW EXAMPLE MODELS & DATA

A set of small Models and datasets to facilitate the demonstration of new functionality and concepts in the latest IFC extension. These models will compliment the Prototype viewer and the modelling guidelines.

3.8 IPW CANDIDATE STANDARD

The final Deliverable of the project is hoped to be the submission of a Candidate conceptual standard comprising of the following:

- Requirements Analysis Report
- IPW Platform Independent Model
- IPW PIM-PSM Mapping Report⁴
- IPW Modelling Guidelines.

⁴ A technical and computer readable set of mappings showing where concepts in the PIM are mapped and encoded in the IFC.

The hope is the following will form the technical documentation output from the project to support the collaborative deliverables of the bSI UML Model Report, IFC Extension & IFC Documentation.