Integration and provision of BIM-based information containers for the asset management of roads and bridges

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ABSTRACT

This paper presents a concept for the integration and application of BIM models for the condition assessment of transport infrastructures. For this purpose, necessary information for condition assessment is exchanged digitally and comprehensibly with the help of information containers in accordance with ISO 21597-1. The application of ISO 21597-1 requires a precise definition of the information to be exchanged, the specification of templates to be used, and formal logic for data links. Another very important aspect is the distinction between information that is contained directly in BIM models and information that is to be linked to external documents. Furthermore, it will be shown how semantic information is handled on one hand and geometric representation on the other hand. The concepts are presented and discussed based on real case studies.