COOPERATION IN DIGITAL DESIGN DRIVEN BY EMERGING INTERNATIONAL STANDARDS

Igor Svetel[1*], Tatjana Kosić[1], Nenad Ivanišević[2]

[1] Innovation Center, Faculty of Mechanical Engineering, University of Belgrade, 11000 Belgrade, Serbia

2 Faculty of Civil Engineering, University Of Belgrade, 11000 Belgrade, Serbia

*Corresponding author e-mail: isvetel@mas.bg.ac.rs

Abstract

The growing acceptance of BIM technologies in AEC companies has led to the development of numerous applications that address certain aspects of the profession. There is a need to regulate the management of various digital building formats that occur in this process. Recently, two international standards appeared that introduce a unified approach to this issue. Building Collaboration Format (BCF) provides a unified format that allows the exchange of information about the observed problems in the models, where only the data about the problem and its location on the basic BIM model are transmitted. Based on this format, the cloud service BIMcollab was developed, which enables centralized management of all issues on the BIM model. The ISO 19650 is the set of standards that regulate organization of information about construction work. The standard provides guidelines for both information organization and information management processes. The central theme of these standards is cooperation at all levels of BIM model development. All processes involve a circular cycle of adoption in which all stakeholders must agree with the proposals. The standard provides many concepts that help to regulate a process. Common Data Environment (CDE) defines that whole process must be carried in one agreed source of information that is central point for collecting, managing and disseminating each information. The project information is collected in federated models from information containers originating from different project stakeholders. ISO 19650 defines BIM as a collaborative process of information delivery in accordance with organisational, asset and project information requirements.

Keywords

BIM, Federated Model, Model Management, BCF, ISO 19650

Acknowledgement