

Building Information Management in Context of Urban Spaces, Analysis of Current Use and Possibilities

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Abstract : Currently, the implementation of 3D models in the construction industry is gaining popularity. Countries around the world are developing their own modelling standards and implement the use of 3D models into their individual permitting processes. Another theme that needs to be addressed are public building spaces and their subsequent maintenance, where the usage of BIM methodology is directly offered. The significant benefit of the implementation of Building Information Management is the information transfer. The 3D model contains not only the spatial representation of the item shapes but also various parameters that are assigned to the individual elements, which are easily traceable, mainly because they are all stored in one place in the BIM model. However, it is important to keep the data in the models up to date to achieve useability of the model throughout the life cycle of the building. It is now becoming standard practice to use BIM models in the construction of buildings, however, the building environment is very often neglected. Especially in large-scale development projects, the public space of buildings is often forwarded to municipalities, which obtains the ownership and are in charge of its maintenance. A 3D model of the building surroundings would include both the above-ground visible elements of the development as well as the underground parts, such as the technological facilities of water features, electricity lines for public lighting, etc. The paper shows the possibilities of a model in the field of information for the handover of premises, the following maintenance and decision making. The attributes and spatial representation of the individual elements make the model a reliable foundation for the creation of "Smart Cities". The paper analyses the current use of the BIM methodology and presents the state-of-the-art possibilities of development.

Keywords : BIM model, urban space, BIM methodology, facility management

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