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Information Exchange Process Analysis between Authoring Design Tools and Lighting Simulation Tools

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Abstract : Successful buildings' simulation and analysis inevitably require information exchange between multiple building information modeling (BIM) software. The BIM infor-mation exchange based on IFC is widely used. However, Industry Foundation Classifi-cation (IFC) files are not always reliable and information can get lost when using dif-ferent software for modeling and simulations. In this research, interviews with lighting simulation experts and a case study provided by a company producing lighting devices have been the research methods used to identify the necessary steps and data for suc-cessful information exchange between lighting simulation tools and authoring design tools. Model creation, information exchange, and model simulation have been identi-fied as key aspects for the success of information exchange. The paper concludes with recommendations for improved information exchange and more reliable simulations that take all the needed parameters into consideration.

Keywords : BIM, data exchange, interoperability issues, lighting simulations
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