



An ontology framework to access IFC model data

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In the last decade several research and development projects have shown that product data technology (PDT) can successfully and beneficially replace the traditional document-centred approach to project realisation. Today, with the development of the IFC project model by the IAI, the product modelling paradigm is being rapidly introduced in commercial software as well. However, actual PDT application in the AEC domain is still limited to CAD data exchange and some basic project-centred data management facilities. There is a great need of human-centred product model services supporting the engineer with additional knowledge about the models, providing customisable user-friendly capabilities for management and modification of the data, and enabling structured access to the information on the project(s) he is working on. These issues have motivated the development of an ontology framework that can serve as advanced user gateway to product model data. The suggested approach draws upon recent ICT achievements, especially regarding IFC environments. In this paper we present the rationale, the principal design, and the technical structure of the ontology framework based on the XML schema specification. Further on, we explain its software realisation, provide examples of its current application and outline possibilities for its further development and envisaged broader usage. Reported is research work performed in conjunction with the EU ISTforCE project (IST-1999-11508).

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