

Research on Architectural Steel Structure Design Based on BIM

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Abstract : Digital architectures use computer-aided design, programming, simulation, and imaging to create virtual forms and physical structures. Today's customers want to know more about their buildings. They want an automatic thermostat to learn their behavior and contact them, such as the doors and windows they want to open with a mobile app. Therefore, the architectural display form is more closely related to the customer's experience. Based on the purpose of building informationization, this paper studies the steel structure design based on BIM. Taking the Zigan office building in Hangzhou as an example, it is divided into four parts, namely, the digital design modulus of the steel structure, the node analysis of the steel structure, the digital production and construction of the steel structure. Through the application of BIM software, the architectural design can be synergized, and the building components can be informationized. Not only can the architectural design be feedback in the early stage, but also the stability of the construction can be guaranteed. In this way, the monitoring of the entire life cycle of the building and the meeting of customer needs can be realized.

Keywords : digital architectures, BIM, steel structure, architectural design

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