

Enhance Construction Visual As-Built Schedule Management Using BIM Technology

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Abstract : Construction project control attempts to obtain real-time as-built schedule information and to eliminate project delays by effectively enhancing dynamic schedule control and management. Suitable platforms for enhancing an as-built schedule visually during the construction phase are necessary and important for general contractors. As the application of building information modeling (BIM) becomes more common, schedule management integrated with the BIM approach becomes essential to enhance visual construction management implementation for the general contractor during the construction phase. To enhance visualization of the updated as-built schedule for the general contractor, this study presents a novel system called the Construction BIM-assisted Schedule Management (ConBIM-SM) system for general contractors in Taiwan. The primary purpose of this study is to develop a web ConBIM-SM system for the general contractor to enhance visual as-built schedule information sharing and efficiency in tracking construction as-built schedule. Finally, the ConBIM-SM system is applied to a case study of a commerce building project in Taiwan to verify its efficacy and demonstrate its effectiveness during the construction phase. The advantages of the ConBIM-SM system lie in improved project control and management efficiency for general contractors, and in providing BIM-assisted as-built schedule tracking and management, to access the most current as-built schedule information through a web browser. The case study results show that the ConBIM-SM system is an effective visual as-built schedule management platform integrated with the BIM approach for general contractors in a construction project.

Keywords : building information modeling (BIM), construction schedule management, as-built schedule management, BIM schedule updating mechanism

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