Analyzing Schedule Delays through Computerized ICBF Method

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Abstract

Schedule delays are common disputes in construction projects. It is required to develop a usable tool for resolving delay problems. Previous study had proposed an innovative approach for analyzing schedule delays, namely the Isolated Collapsed But-For (ICBF) method. During analysis, the ICBF method requires as-planned and as-built schedules as well as identified liability documents. Available project management software do not offer usable tool similar to the ICBF method. Applying the ICBF method to manually analyze schedule delays is time-consuming, because a construction project may include numerous activities and complex relationships exist in these activities. This study thus focuses on computerizing the ICBF method. To simplify the procedure of software development, this study applies a spreadsheet technique to achieve the integration of automatic operations and the ICBF method. According to the examined results of the delay case study, this computerized ICBF method immediately classify the schedule delays caused by project owners and contractors, and avoids unnecessary human-made calculation errors. In sum, this study proposes an efficient tool for analyzing schedule delays in project management.

Keyword：Schedule Delay, Delay Analysis, Construction Dispute, Information Technique