

VISUALIZATION OF COST FUNDING SOURCES IN BUILDING INFORMATION MODELS

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ABSTRACT

Public construction owner organizations often depend on various funding sources to meet their ongoing capital improvement needs, including federal, state, and local grant funding. These funding sources typically provide usage guidelines and reporting criteria as part of the conditions owners are required to abide by for grant disbursement and continued eligibility for future funding. This presents challenges to the owner in ensuring the appropriate allocation of funding during initial project planning, and continued adherence to funding regulations throughout the construction phase, particularly during change management. This research proposed a methodology for the visualization of cost information in Building Information Models (BIM) using BIM tools such as AutodeskTM Revit[®] and AutodeskTM Assemble[®]. Project parameters within the BIM relational database were created to account for the funding source information of the model components, enabling the visual representation and analysis of embedded project information at later stages of model development. This approach was designed to foster effective and consistent communication among decision-makers as to the apportionment and tracking of facility costs to specific funds. This methodology will be applicable to other non-geometric attributes an owner may wish to track during a facility's life cycle.