Study on Generating Basic 3d Model for Continuous Support to Long-Term Urban Project

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Abstract

This study aims to develop a 3D modeling method that can support a project from the earliest stage and on a long-term basis. The basic 3D model is composed of a terrain model and a building model. The terrain model was expressed as TIN that was generated from DEM on GIS. On the other hand, the building model was generated from a digital map. To express the height of buildings, each elevation of the top of building was calculated automatically by utilizing a zone-statistics function on GIS. In addition, the 3D model has been updated to reflect the development changes in the case study area. Latest city planning map was geometric-corrected and overlayed on GIS in the updating process. Finally, the accuracy of the generated model is verified by comparison with actual photographs. This poster presents how to generate basic 3D model by using spatial data on GIS, and discusses about an efficient modeling method for continuous support to long-term project.

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