3D City Models as a 3D Cadastral Layer: The Case of the TKGM Model

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SUMMARY

Optimal land administration systems aim to record data in a comprehensive, sustainable and accessible way, although it includes individual/public rights and restrictions in 3 dimensions (3D) and 2 dimensions (2D) of the land. The systems developed within the scope of the objectives will provide a basis for planning activities in a broad sense. They will enable public institutions and organizations to use the land effectively and supply services. Modern land administration systems; In addition to the 2nd Dimension of the land, it is expected to record and secure the individual/public rights and restrictions in the 3rd Dimension in a continuous, accessible, and comprehensive manner to provide a basis for planning activities in a broad sense and to support the taxation activities of the public.

On the other hand, with the new system designed, in addition to the own data of the institutions, interoperability will be ensured with the data produced or recorded by other institutions. This situation enables the creation of a Model that includes 3D data and geospatial data from different sources created by institutions with the development of technology.

In this study; The General Directorate of Land Registry and Cadastre (TKGM) carried out the interoperability of the data in the Amasya district, combining them under a single roof and creating a model with all the data mentioned above sets, depending on the new requirements based on developing technologies. Within the scope of the TKGM Model, 3D photogrammetric models, 3D modeled indoor data from physical architectural projects and other attributes of land administration were used.