

From 2D Representation of the Buildings into Cadastral Maps towards 3D GIS Applications and BIM – a Case Study for Prishtina

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SUMMARY

Historically the cadastral systems were a parcel based systems and 2D maps where the basis for property boundary definition. Drawing property lines in 2D classic maps has become an out of fashion way and the information that can be taken from them has become not satisfactory for property rights registration. Therefore experts throughout the world have focused their efforts in developing models and techniques towards 3D definition of properties and this way 3D cadastre models were developed as a necessity of the time.

This article aims to describe a simple model developed for Municipality of Prishtina, the capital of Kosovo, for registration of common properties and this pilot project can be considered as one of the first steps towards graphical 3D property definition in Republic of Kosovo. The model itself was used only for common properties within condominiums but it can be used as a low cost way for registration of private apartments as well. The buildings treated by this pilot project are the existing ones and for which no detailed digital data exist excluding some simple sketches archived in PDF sheets.

Since 3D cadastre treats buildings more than other cadastral units, it is essential to focus the attempts towards 3D GIS applications in building management. One of the newest achievements in managing the buildings' lifecycle is Building Information Modelling (BIM). This new development can be as useful in 3D cadastre as it is in architecture or civil engineering.

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