# Developing an Advanced Document Based Map Server

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### Abstract

Digital maps are the most important data source of Geographical Information Systems, and publishing of maps is an essential governmental task. For several years, the ELTE Faculty of Informatics has been developing a digital map database server known as EDIT – short for University Digital Map Server in Hungarian – with the foremost aim of assisting university scientific research projects and education by providing online access to various digital raster and vector maps, aerial and satellite imagery. This paper presents the ideas, principles and practical aspects behind the development process of this system.

EDIT has been a virtual laboratory for a map server that has already seen two working versions online with more than 300GB-s of raster map data. The third version is now under development and will offer novel features compared to present map servers. It offers an interactive gateway and an application programming interface that has the capability – beyond the uploading and querying of maps – to apply image transformations, conversions, filters, georeferencing, projection transfer with location based search and comparison. To cope with these features and to allow flexible handling of descriptive data, the database background has been changed from relational to document-oriented basis, which also allows the easy tracking and reversion of modifications and also the handling of temporality.

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