

Generalization of Cadastral Information Data

GAO Wenxiu DU Daosheng GONG Jianya

*(National Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing,
Wuhan Technical University of Surveying and Mapping, Wuhan, 430079)*

The monitoring and management of cadastral information require different content at different scale levels. It is necessary to develop methods to transfer information from larger scale data sources to smaller scale data set so that the duplication of expensive data acquisition can be avoided as much as possible, and so that the consistency between data at the different scale levels can be maintained. Generalization just is the process of abstracting the representation of geographic information when the scale of a map is changed.

Cadastral information mainly contains spatial data and thematic data. The former represents the place, size, shape of parcels, while the thematic data describes the sort of land use, the owner and ownership of the parcels and so on. Therefore, the generalization of cadastral information data should take account of the two kind generalizations—the generalization of spatial data and the generalization of thematic data.

This paper mainly describes the process of the generalization of thematic data which is the basis of the generalization of spatial data. The generalization of thematic data needs expert knowledge and experience, and should follow the policy of the country as well as the special rules of cadastral management. There are three phrases in thematic data generalization. Firstly, determine the content of the target scale level according to the intended purpose of the generalization. Secondly, define the rules of generalization from a large scale geographic database to a less small scale data set. At last, according to the above rules and by class generalizing, reclassifying, associating, form a set of thematic data in the target scale level.

Finally, the paper discusses the generalization approaches of spatial data on the basis of the generalization of thematic data such as object simplification, aggregation, displacement, combination, exaggeration. And give an example to get the generalized data from 1:5000 database to 1:10000 database.

Key words: generalization, thematic data, spatial data, rules