

# Development of the Identifier for Topographic Map Feature

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**Abstract:** In recent years, feature-based data sharing is the critical issue for SDI and OpenGIS environment. From the perspective of feature-based database, the development of standardized identifier system for topographic data is an important issue for the establishment of feature-based topographic databases. The standardized identifier can recognize a feature by the spatial or non-spatial attributes of a feature and link these features that represent the same topographic objects. Besides, the historical information of features also can be managed and provide users with the changed information about features. Furthermore, if the identifiers can extend to incorporate the domain identifier or establish the related translation mechanism between different identifier systems, these data distribute among different domains can be linked together and be exchanged. Then it can provide other domains or organizations with spatial description of objects and get the related information that designed by the different perspectives. For example, we can establish the translation mechanism between transportation domain and topographic domain to obtain the more detailed information about roads, like: turn restriction of roads (one-way street or two-way street). This study analyzes the standardized identifiers in the topographic domain, and establishes the mechanism that can link those data in different domains. Furthermore, it can promote the circulation of topographic data and applications in various aspects from the perspective of the data sharing.

Keyword: Topographic map, feature, identifier