POPULATED PLACES DATABASE OF TURKEY (PPDB-T) AND GENERATING THEMATIC MAPS REPRESENTING THE POPULATION CHARACTERISTICS BY USING PPDB-T

Author : Abdulvahit Torun

General Command of Mapping

06100-Cebeci/ANKARA/TURKEY

e-mail : atorun@hgk.mil.tr

Turkey has a hierarchical administrative system which looks like a balances tree structure. The sequence of residential entities (populated places) from top to bottom is province, district, sub-district, village and suburb respectively.

The data is collected from the conventional data store of the Cartography Department, which consists of a form for each populated place. The data store comprises all the populated places on the 1:25 000 topographic map series of Turkey. Some of the information collected for populated places are a unique ID number, nationally authorized name of the place, location (title of the 1:25 000 map sheet and grid numbers), population, old names of the place and height of the center of the town information. The sub-district and villages have some additional information for the questions 'Does this place have post office, municipality and cadastral records?'. The population information from the year 1997 are imported from the database (spread sheet files) of National Statistics Institute by resolving the schematic heterogeneity between two systems. The problems dealt with to construct schematic interoperability are as follows; different naming conventions for combined names, clustering the same place in different residential classes, using different names for the same place (old or new names), different administrative link for the same couple of places etc.

The database considering the administrative hierarchy is developed in MicroSoft Access environment and the link between PPDB and administrative boundaries is constructed by using GIS software. Tools are implemented to make use of the database in digital map production (topo25) in naming processes. In addition to map production work, the database will provide information to the users who can use the information for the purposes of census and statistics, urban and regional planning, emergency, map and atlas production, security, tourism and commerce etc.

Population and location data of PPDB and administrative boundaries are used to generate thematic maps that visualize the population characterisitics of Turkey. The PPDB contains population data from the dates 1990 and 1997. Those thematic maps (choropleth maps, proportional point symbol maps, isoline maps, statistical surface maps) are produced by using ESRI Arcview software.

This abstract of original paper is prepared for Oral Presentation in ICC 2001, Pekin (Beijing), and it is considered to be covered in technical session "SPATIAL DATA VISUALIZATION" and

"GEO-SPATIAL DATA SHARING"