

The Importance of Integration Solutions in Spatial Data Applications

Emin Bank (Turkey)

Key words: Cadastre; Digital cadastre; e-Governance; Engineering survey; Geoinformation/GI; GSDI; Land management; Spatial planning; Integration, GIS Integration, Integration of Spatial Applications, GIS/MIS Integration, CAD/GIS Integration, GIS/e-Government Integration

SUMMARY

The Importance of Integration Solutions in Spatial Data Applications Integration means consolidation and adaptation. Software platforms that ensure embedded integration in spatial data applications save the users from time loss and simplify the usage. The most common and important integration processes of spatial data applications; • CAD and GIS integration, • MIS and GIS integration, • GIS and GIS integration (integration of different GIS platforms) • GIS and e-Government integration. Most spatial data like surveying, mapping, planning, land arrangements (cadastre, expropriation, land consolidation, zoning applications etc.), upper structures like roads/dams/tunnels/bridges/buildings/ sites/factories and parks as well as infrastructure networks such as water, electricity, waste water and sewage are all designed as CAD data structure. Then all the spatial data are transferred to the GIS system for query, analysis, reporting, and thematic mapping and for sharing via web. During that transfer process, symbol data may be lost and time loss may occur. The software that supports the CAD and GIS data at the same platform can prevent the symbol data and time loss. So, in that platforms there would be no need to work in different software. Another important integration is MIS and GIS integration. Nowadays, many MIS projects are nested with spatial data. So, the data transition need from text db platform to the spatial and from spatial to the text db would arise. The importance of that integration increases in planning, taxation of spatial data, management of spatial data and in the management of immovable values. The integration process of GIS projects in different GIS platforms is also an important issue. Both the services that ensure the data transition between GIS platforms and the solutions that ensure the data use without transition provide convenience to the users. The other important integration process is the integration of GIS projects with e-Government data. To ensure that integration, both the e-Government portals provide service and the end user software get service should support OGC services. In that scientific work, the importance of integration in spatial data applications, simply transition between CAD and GIS platforms, sharing of the data with GIS-OGC services without leaving CAD platform, simply integration with MIS systems, integration of different sections with current varied GIS platforms, simply integration of maps, orthophoto,, land administrations, cadastre and address data provided by public authorities with CAD & GIS & MIS & e-Government integration solutions provided by Netcad, widely used software in Turkey, will be presented.