

Urban applications for Gis: a case study in three municipal public administrations in Rio Grande do Norte State - Brazil

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The present paper discuss the actual stage of the utilization of the Geographic Information System (GIS) in urban applications and focuses on the institutional aspects of the implementation of this system in three municipal public administrations located in Rio Grande do Norte State - Acará, Serra Negra e Ceará-Mirim.

The applications are discussed in four categories: data modeling and manipulation, software and user interfaces, interoperability and system networks, and methodology of data storing. The approach is based on problems, which could appear when you change the traditional way of working to the process of using the technology of geoprocessing, and mainly focuses on the changes of methodologies which were used for a long time in the organization of cadastral data. It also discusses the importance of the use of geoprocessing in urban planning.

The proposed application is based on the Multidata Model – MDM, an object-oriented approach. To guide and speed up the updating of the geographic database, a methodology was used that includes stages that range from the data collection effort to the updating of GIS data, and its execution according to the priorities of the municipal administration. With the use of the an graphic interface, the system allows a broader treatment, which offers the graphic representation besides of the numeric and descriptive data basis, and will make it easier to fulfill planning of the decision making processes.