Geophysical Research Abstracts,
Vol. 10, EGU2008-A-11820, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-11820
EGU General Assembly 2008

Developing Geographical Information System using software components technologies

M. Dardala, I. Smeureanu and A. Reveiu

Academy of Economic Studies Bucharest, Romania (dardala@ase.ro, smeurean@ase.ro, reveiua@ase.ro / Fax: 40213191991)

The development of the Geographical Information Systems using specialized components it is a must in the context of manipulating a large diversity of data types, because of data processing complexity and due to the usage of a great number of peripheral devices.

In this kind of systems it is possible to use specialized components to present static data (numerical, text and image) and to display data with temporal content like: animations, sound, video data.

On the other hand it is essentially to use specialized components for data communication. In this context an important role have the components for remote data streams broadcasting to the geographical information system able to manage and to display the stream.

For instance, the usage of specialized software component in a Geographical Information System, we can set up some fixed video cameras in a town to point up to the traffic jam determinate by image processing; we can use the sensors of temperature to periodically register the temperature values.

The integration of these components supposes to define some flexible architecture based on standard protocols for data communication and using XML documents for data transfer.

The utility of these architectures derives from the fact that the geographical phenomena aren't developed inside or in the neighborhood area of the computer systems.

Such a system must use iconic standard interfaces to display on the map information like:

- The locations from which we can receive information,
- The data type transmitted from the remote location,
- The source status: connected or disconnected.

The iconic interface is used to implement the interaction between the users and the informatics system.

By clicking on icons, the user could display the data received from the remote point.

We propose to store the large data volume in a data warehouse to allow the multidimensional data analysis.