

MUNICIPAL INTERNET GIS-BASED INFORMATION-INQUIRY SYSTEM

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The Novosibirsk Regional Center of Geoinformational Technologies (NRCGIT) is a top-ranked GIS center in Russia. It develops geoinformational technologies including Internet-mapping. In Russia Internet mapping has several specific features. First, they are connected with a specific economical situation in our country. On the one hand most of national enterprises, which directly work with spatial data, are short in money, so they have no opportunity to use modern telecommunication facilities. On the other hand a high standard of fundamental and applied researches in Russia provides a unique opportunity for investigators to have their own developments aimed for the realization of GIS-functions in Internet. Nevertheless, there are few examples of the practical use of those technologies in Russia. That situation can be changed in the nearest future due to the activity of several professional teams working on GIS/Internet-related projects.

In 2000, the NRCGIT started elaborating a cartographic-based Internet resource, i.e. a municipal informational system. The latter represents an interactive GIS of urban districts supplying the information about objects of vital importance, such as hospitals, schools, shops, etc. A tentative demand analysis showed good prospects for the creation and development of an inquiry www-site. Nowadays, the number of computers in our country is increasing linearly. In the period from 1996 till 1998 the number of Russian Internet-users increased three times. The average growth of the number of independent informational www-sites (in Russian) is about 200% per year. Novosibirsk is a very prospect area for Internet-service development, because it is one of the biggest cities in Russia - the third in population. That is why we can forecast a large number of users of the new informational www-site, which is under creation now.

While working with the users' interface, the authors tried to get an optimal combination of its transparency and full-scale functions. In other words, if an ordinary Internet-user is not familiar with GIS, nevertheless, he will have no difficulties in using that resource. On the other hand, it is necessary to create as full as possible set of functions in order to realize the idea of GIS-operation in Internet efficiently. We used ARCImS (ESRI Inc.) for the realization of GIS functions in Internet. Spatial data were processed with Erdas Imagine (ERDAS Inc.), ArcView, and ArcInfo Professional (ESRI Inc.).

Our developed model of an informational-inquiry system will be used as a basis for the creation of other Internet-references basing on the visualization of spatial data.