Contribution ID: **93**   Type: **not specified**

NEW TECHNOLOGIES OF 2-D & 3-D MODELING FOR ANALYSIS AND MANAGEMENT OF NATURAL RESOURCES

Friday 2 October 2015 14:00 (20 minutes)

For ensuring technological support of research and administrative activity in the sphere of environmental management was developed a specialized modular program complex. Its components provide realization of three main stages of any similar project:
- effective management of data and constructing of information and analytical systems of various complexity;
-complex analytical processing of spatial information and solution of expected and diagnostic tasks;
-operational data visualization and results of researches among the Internet, creation of the situational centers of support of administrative decisions.
The special attention in developing a program complex is focused to creation of convenient and effective tools for creation and visualization 2d and 3D models providing the solution of tasks of the analysis and management of natural resources.

Summary

The presented program complex is widely used at scientific institutes, the Russian and foreign geological companies and business. As examples of the most interesting projects in the field of modeling of the natural processes and situations realized on its basis can be allocated:
- creation of system of monitoring of dangerous petroleum wells, including model of support of decision-making on prime elimination of the most dangerous from the point of view of impact on environment;
- the analysis of natural and technological hazards for a number of regions of the Russian Federation with creation of computer Internet models for an assessment and the forecast of a situation;
- creation of three-dimensional models of a structure of crust on the basis of integration of geophysical, geo-logical and space data for the solution of tasks of the forecast of fields of solid minerals and hydrocarbons for territories of the Western and Eastern Siberia.
We have a lot of experience of its application in educational process in cooperation with the leading higher educational institutions of Russia and foreign countries.

Author: Mrs CHEREMISINA, Evgenia (Dubna International University of Nature, Society and Man. State Scientific Centre «VNIIgeosystem».)

Co-authors: Mrs LYUBIMOVA, ANNA (State Scientific Centre «VNIIgeosystem»); Mrs KIRPICHEVA, Elena (Dubna International University of Nature, Society, and Man. Institute of system analysis and management)

Presenter: Mrs CHEREMISINA, Evgenia (Dubna International University of Nature, Society and Man. State Scientific Centre «VNIIgeosystem».)

Session Classification: Workload Management Systems in Applied Research and BigData