

Sharing and finding visualization files of geoscience data on the data-showcase system Dagik

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We are developing a system to display geoscience data of various databases on virtual globe. This system is designed to be a showcase of databases. Users can browse various types of data of databases on this system. When they find data of interest, they can follow the network link to the WWW-based database and study it in detail. This system is served as a portal to geoscience databases. We call this system Dagik (DATA-showcase system for Geoscience In Kml). It uses Google Earth as a browser. The reason to use Google Earth is that it has 1) four-dimensional data presentation capability, 2) scalability in time and space, 3) network capability. Virtual globe can show the data in intuitive way. It is a very powerful tool to show the characteristics of data for those who are not familiar with the data. Dagik started in 2007 for geospace data, and was expanded to cover the geoscience in 2009. The sequence of usage of Dagik is as follows: 1) download the start up file, dagik.kml, from the Dagik website (<http://dagik.org/>), and open it with Google Earth, 2) select year, month and day, and get the data list file for the selected date from the Dagik server, 3) select the data type from the data list and the KML/KMZ plot files will be downloaded from the Dagik server or the other KML/KMZ server to display on Google Earth. There are several databases that provide their data plots in KML/KMZ format for Dagik. Dagik, a data-showcase system of geoscience, can bridge the gap between databases and novice users of the geoscience data. In this paper, we will introduce the current features of Dagik and its new data search system based on integrated use of Wikipedia and domain ontology.

Keywords: data showcase system, data visualization, virtual globe, data search