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Virtual Globes and Geological Modeling

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Author(s)

Tsangaratos Paraskevas

ABSTRACT

Virtual Globes such as Google Earth TM, revolutionize the way scientists conduct their research and the way the general public use geospatial – related data and information. Improvement in the processing power and storage capacities of computers, along with the increased Internet accessibility and connectivity, has supported the usage of Virtual Globes technologies. Even more, software releases of freely downloadable Virtual Globes, such as Google Earth and NASA World Wind, has sparked an enormous public interest and increased people' s awareness of spatial sciences. In this study, the Virtual Globes (VG) revolution is discussed and a client - server Graphical User Interface (GUI) application is presented. The developed application enables Google Earth TM Application Program Interface and activates spatial analysis, through enhanced JavaScripts and Visual Basic script codes. The main scope was to present the methodology followed during geological modeling along with the application capabilities when handling with data derived from digitized geological maps and field measurements.

KEYWORDS

Virtual Globe, Geological Modeling, Graphical User Interface, Spatial Analysis

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