INTERACTIVE RENDERING TECHNIQUES FOR HIGHLIGHTING IN 3D GEOVIRTUAL ENVIRONMENTS

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Commission IV, WG IV/8

ABSTRACT:

3D geovirtual environments (GeoVE), such as virtual 3D city and landscape models become an important tool for the visualization of geospatial information. Highlighting is an important component within a visualization framework and is essential for the user interaction within many applications. It enables the user to easily perceive active or selected objects in the context of the current interaction task. With respect to 3D GeoVE, it has a number of applications, such as the visualization of user selections, data base queries, as well as navigation aid by highlighting way points, routes, or to guide the user attention. The geometrical complexity of 3D GeoVE often requires specialized rendering techniques for the real-time image synthesis. This paper presents a framework that unies various highlighting techniques and is especially suitable for the interactive rendering 3D GeoVE of high geometrical complexity.