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## Visualization and dissemination of global crustal models on virtual globes

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### Abstract:

Global crustal models, such as CRUST 5.1 and its descendants, are very useful in a broad range of geoscience applications. The current method for representing the existing global crustal models relies heavily on dedicated computer programs to read and work with those models. Therefore, it is not suited to visualize and disseminate global crustal information to non-geological users. This shortcoming is becoming obvious as more and more people from both academic and non-academic institutions are interested in understanding the structure and composition of the crust. There is a pressing need to provide a modern, universal and user-friendly method to represent and visualize the existing global crustal models. In this paper, we present a systematic framework to easily visualize and disseminate the global crustal structure on virtual globes. Based on crustal information exported from the existing global crustal models, we first create a variety of KML-formatted crustal models with different levels of detail (LODs). And then the KML-formatted models can be loaded into a virtual globe for 3D visualization and model dissemination. A Keyhole Markup Language

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