

the Challenges of Displaying Geotechnical Information in 3D Environments

During the course of an On Site Inspection (OSI), many different types of data and data products are generated, including cartographic, logistical and technical data. Representing them so the information they contain is easily understood by the Inspection Team is important but extremely challenging whether they are displayed in 2D or 3D additionally, any one result can be displayed in several ways depending on its purpose. This poster presents options for displaying a range of OSI relevant data products with the goal of finding optimal ways to present them within integrated 3D environments: using data from OSI exercise IFE14. The results can support future OSI work, including planning, training and exercises. We also report on new ways to generate 3D data products and will display an additive manufacture (3D printed) colour model and a digital model of the principle location for IFE14. We explore how raw data may be adapted for integration into 3D environments. Some relatively complex data must be abstracted into simpler products so it can be represented in a meaningful way e.g seismic data, in contrast, the complexity of some data products may have to increase, e.g converting standard photographs into detailed 3D models by using photogrammetry.

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Track Classification: 3. Advances in sensors, networks and processing