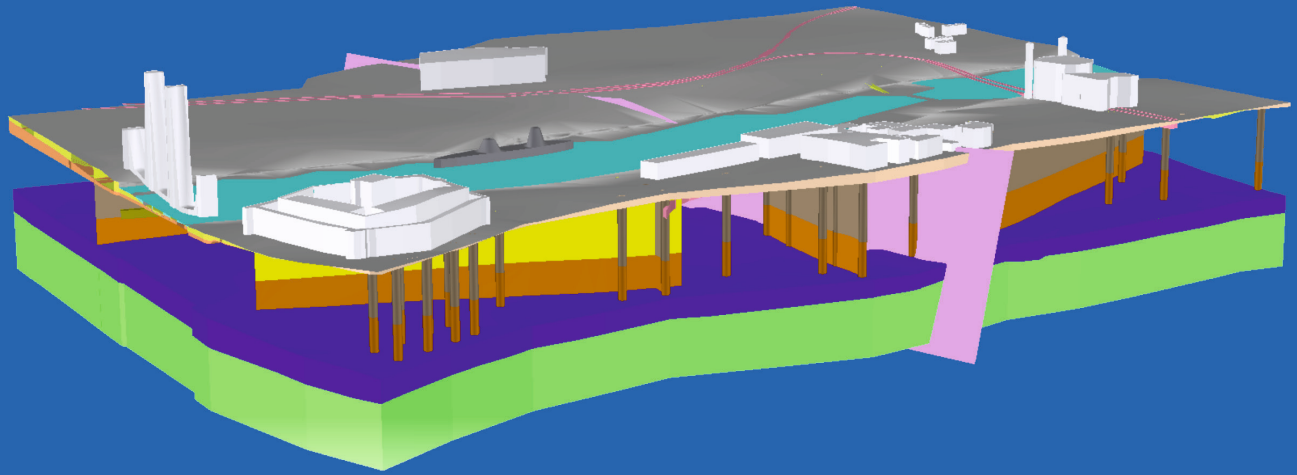




# 3D Geological Modelling with GSI3D

The British Geological Survey



## Geological modelling for the 21st century

**G**SI3D is a geological modelling software tool that marks a critical advancement in modern geology, taking geological mapping into the 21st century. Developed by world-leading experts at the British Geological Survey and INSIGHT GmbH, it allows 3D subsurface models to be constructed intuitively by geoscientists. Countries across the globe rely upon GSI3D as a platform to create geological models of national and commercial importance, facilitating the visualisation and analysis of the subsurface environment.

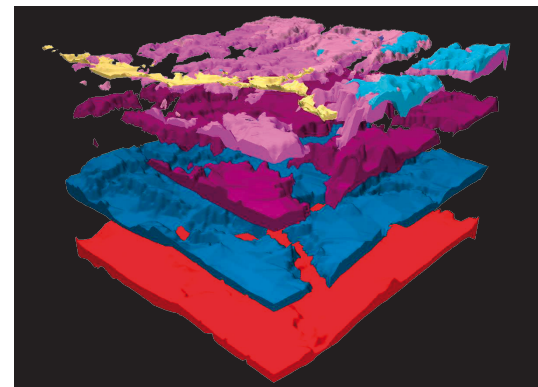
GSI3D prides itself on providing a modelling environment into which a vast range of data can be imported, allowing the creation of 3D models of exceptional quality and detail. The tool enables the user to develop models through the construction of traditional cross sections and by correlating boreholes and outcrop data to produce networks of interlocking sections or 'geological fence diagrams'.

Together with a digital elevation model, this geological interpretation is used by the software engine to produce a 3D solid model of the subsurface with a single click.

The success of the GSI3D methodology is in its simplicity, Holger Kessler from the British Geological Survey says 'the success is based on its intuitive design and the fact that it utilises exactly the same data and methods that geologists have been using for centuries in order to make geological maps and cross sections'.

### Facilitating interpretation

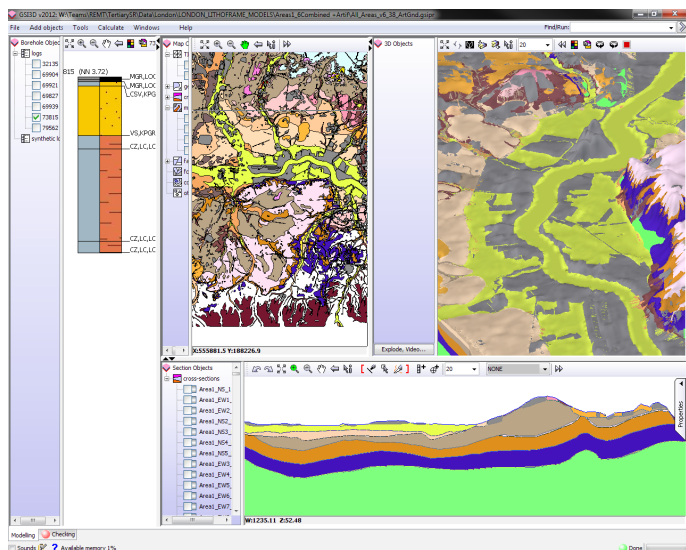
GSI3D model construction draws on the geoscientist's wealth of understanding regarding Earth processes and field experience. As a result, GSI3D enables the efficient interpretation of explicit and implicit knowledge which has previously proved difficult to integrate. You are in control and you will appreciate the certainty inherent in your interpretations; a fact that will be highlighted in the quality of your subsurface understanding.



# GSI<sup>3D</sup>

Research Consortium

[www.gsi3d.org.uk](http://www.gsi3d.org.uk)



### **A wealth of possibilities**

The completed model harbours a wealth of possibilities. The 3D block model itself is a powerful communicator alone, but for more detailed analysis or for providing imports to process-based models, the export possibilities are numerous. Dummy boreholes, synthetic cross sections, horizontal slices, geological interface surfaces or unit thicknesses can be exported at the touch of a button.

### **Our clients**

GSI3D is used by over 20 geological surveys in addition to academics, commercial companies and individuals worldwide to create 3D geological models from the site- to country-scale. Our users are applying GSI3D to national surveying, research and commissioned projects for environmental regulatory bodies, local authorities and utility companies.

### **A tool for decision making**

GSI3D is favoured by many as its interpretative power improves the ability to make effective decisions. It has

been implemented in a wide range of applications from the conceptualisation of groundwater flow and the planning and construction of major subsurface infrastructure, to the evaluation of aggregate resource potential and many more.

### **Licensing**

GSI3D is available under license in the form of a subscription to a research consortium. As a member of the consortium, you will have access to the software, associated literature and an email helpdesk. Importantly, your membership gives you access to the GSI3D community via newsletters and workshops, through which you can share your experiences and provide feedback and recommendations for ongoing development.

To join the consortium, request a trial license, discuss your requirements, or for general questions please visit [www.gsi3d.org.uk](http://www.gsi3d.org.uk) or contact enquiries at [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk).

For more information please contact:

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**British Geological Survey**

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