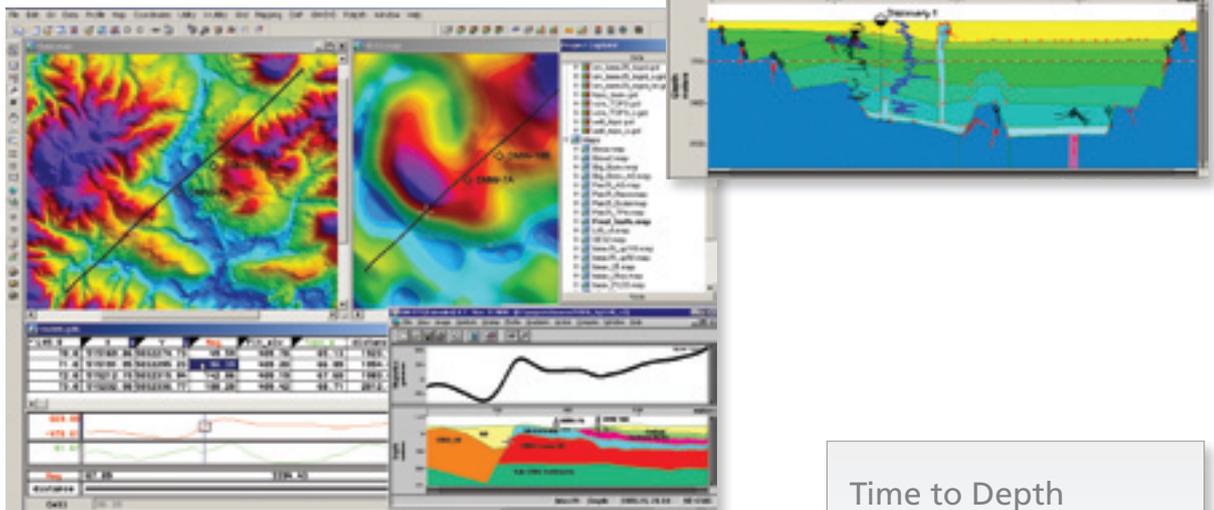




montaj Plus GM-SYS Profile Modelling

montaj Extension developed by Geosoft

The GM-SYS Profile Modelling™ extension to Oasis montaj™ enables you to create a geologic model and test its accuracy by comparing the model's gravity and magnetic response to observed measurements. The software provides integration of topographic, geologic, seismic, and well-log data. Other reference data such as depth-to-basement solutions can be displayed in an overlay on top of the geologic model.



Hundreds of 2D bodies, using any polygonal shape, can be modelled and all bodies may be assigned unique properties. User definable block parameters include: density, susceptibility, remanent inclination, declination, and magnetization, seismic velocity, color and pattern fill. GM-SYS's user-friendly and feature-rich interface makes the modelling process fast and easy with model changes reflected instantaneously in the calculated response. Both gravity and magnetic responses are calculated for the same geologic model. The responses of individual blocks may also be displayed.

Sophisticated vector-postscript drivers export to common graphics applications such as Adobe Illustrator and CorelDraw. Output is clean and layered allowing for easy selection and editing. Other output formats include CGM, DXF, and Geosoft plot files.

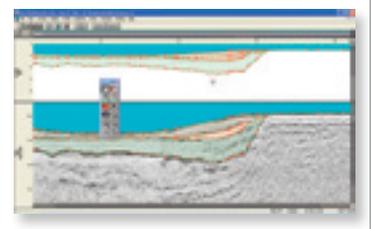
Use GM-SYS with Oasis montaj to quickly create well-constrained and presentable interpretations. Running within Oasis montaj, users can build or add to existing models quickly by extracting data interactively from Oasis montaj grids or databases. Active links to Oasis montaj track the cursor location in your GM-SYS model in all open Oasis montaj Maps and Databases simultaneously.

Quickly and easily explore a vast array of model possibilities. Scroll through a range of density, susceptibility, remanent magnetization, remanent

Time to Depth

Load time sections, build models in time and convert to depth

Oasis montaj GM-SYS Profile users can add a new "time" window below the standard depth window. Users can load seismic time sections, build models in time using all of the GM-SYS tools, assign velocities, and convert the time model to a depth model. The cursor tracks between the time and depth windows so that changes made in one window are immediately reflected in the other window.



inclination, or remanent declination for a block. Instant feedback enables you to quickly test a range of alternative solutions, greatly speeding the interpretation process.

View the geologic model in both crosssection and plan view (at any depth) while simultaneously displaying observed, calculated, and error curves for both gravity and magnetics. Block and surface data can be displayed in spreadsheets enabling quick comparison and alteration of block properties. Well markers and configurable LAS Well files can be shown on the model to help you constrain your model. You can also add symbols to represent depth-picks, seismic horizons, measured strike and dip, etc. as an overlay.

Intermediate and Advanced options are available that provide greater flexibility of model geometry, speed the modelling process, and further constrain modelling variables.

GM-SYS Intermediate Options

Add these Intermediate options to enhance your GM-SYS Profile Modelling extension.

2-3/4 D Modelling

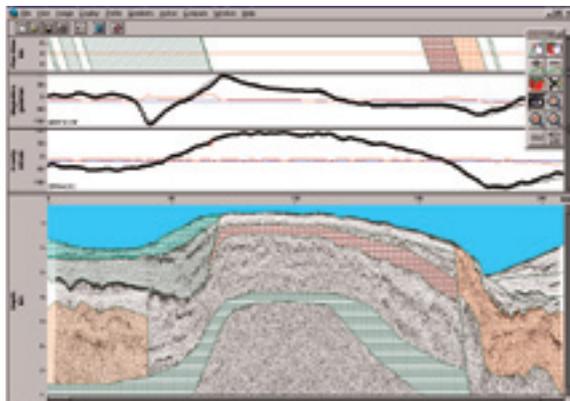
Close approximations of 3D structures are attained with the 2-3/4D Modelling option. Truncate blocks in the \pm Y direction and assign different properties to the new blocks beyond the truncations. The strike of the model may be non-orthogonal relative to the profile direction.

Joint Inversion

The Joint Inversion/Optimization option greatly speeds the modelling process by providing inverse modelling of gravity and/or magnetic data. This option quickly refines your model to obtain the optimal fit between your model response and your data.

Seismic Bitmap

Incorporate seismic and other bitmap data into your modelling with the Seismic Bitmap option. This option enables you to display bitmaps in the background of the cross-section pane of your model to assist with creating and constraining models.



GM-SYS Advanced Options

Add these Advanced options to enhance your GMSYS Profile Modelling extension.

Extended model size

Build models of virtually any size or complexity with the Extended Model option. This option increase the number of available blocks from 125 to 300.

Gravity and Magnetic gradients

Constrain your model utilizing gradient data with the Gravity/Magnetic Gradients option. This option calculates six gradient components of the gravity field and the vertical gradient of the total magnetic field, giving insight into the nature of the source bodies.

High Resolution Modelling

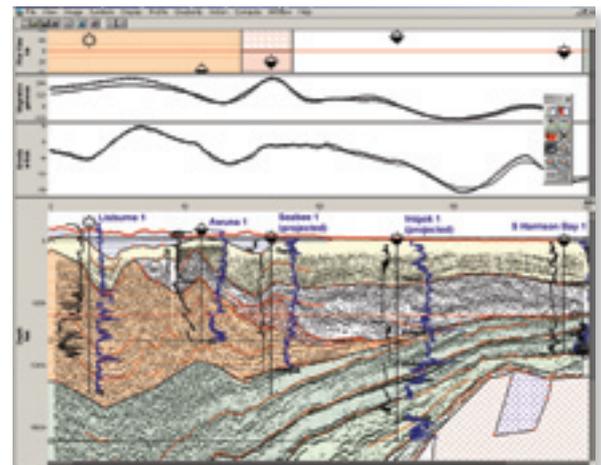
Delineate surface details of blocks and detect small anomalies with the High Resolution option. This option increases the number of calculation points from 1,000 to 16,000.

Grid Response

Create a 3D gravity and/or magnetic response grid from 2 3/4 D model to examine "off profile" anomalies. By comparing this model response grid to the original gridded data, model errors that were previously undetectable become readily apparent.

SEG-Y Reader

Convert 2D SEG-Y profiles into Oasis montaj databases or bitmaps and project them directly onto GM-SYS Profile models. 3D SEG-Y data can be converted into Oasis montaj databases or 3D voxel grids.



*The montaj Plus GM-SYS Profile Modelling extension requires Geosoft's Oasis montaj.