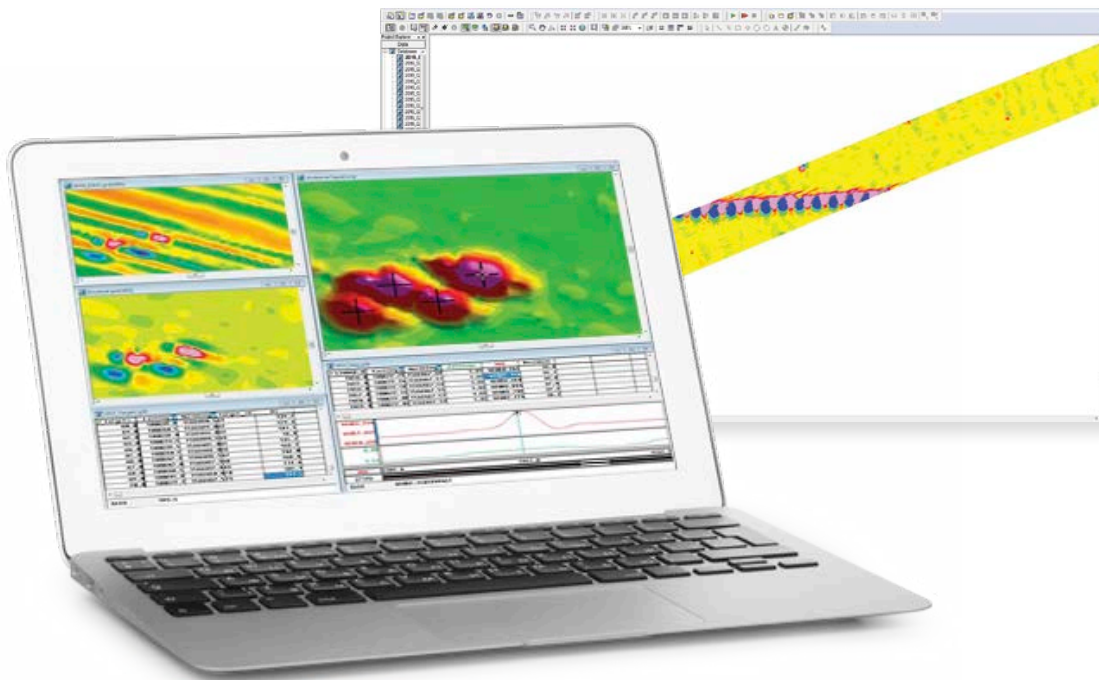# UXO Marine

A specialized workflow for detecting UXO targets in marine environments

High performance software for marine geophysical survey data

UXO Marine provides specialized tools to process and visualize geophysical survey data for effective detection and analysis of targets in marine site investigation surveys. It is designed for marine surveyors working with individual sensors and multi-sensor arrays, as well as multiple gradient and horizontal gradient gradiometers.

- Easily process large volumes of magnetic data
- Map magnetic and electromagnetic (EM) data
- Perform quality assurance and quality control
- Effectively locate and analyze UXO targets
- Optimize survey planning and reporting

Full Featured and Adaptable

Positioning and Location Corrections

Automatically position all sensors in multi-sensor arrays. Correct your data for navigation problems. To help provide consistent analysis from line to line and along each survey line, adjust your magnetic data to a constant "altitude" above the sea floor.

Data Corrections and QA/QC

Ensure your data quality. Enhance the data with filtering and residuals for noise and background removal. Sensor positioning is corrected in a number of ways, including lag and offset tools to correct the path or location of your survey data. Instrument tests and other QA/QC processes are available. Level mag sensors to each other, in arrays. Geophysical correction tools identify and remove spikes and other noise from background geology or instrument-inherent sources.

Data Processing

Rapidly process your data to optimize target picking and analysis. Data can be processed in profile form for wide line spacings (often the case in gradient surveys), or in 2D grids for surveys with full area coverage. Calculate the Analytic Signal from any combination of measured and calculated gradients to reduce noise and produce a cleaner analytical signal for automated and manual target picking.

Target Selection

Targets can be picked from dipole anomalies in total field data or from peaks in the analytical signal. Interactively add, delete or move targets in profile or map views. Automatically find the closest peak to the picked location, when manually picking targets.

Target Analysis

Model magnetic anomalies for selected targets to estimate the target locations and depths. Calculate apparent size and magnetic moment to help characterize UXO targets for informed decision-making. The automated inversion modelling supports the sparse data commonly seen in many marine magnetic and gradiometer surveys, and provides output of magnetic moment. Automatically analyze targets for locations, depths, and ferrous weights using Euler depth calculations.

Planning and Reporting

Produce a variety of powerful and informative maps and displays, including maps that can be rotated to align with the long-dimension of a survey. When you create a map, you can rotate the data view in any direction on the map so that north is not necessarily at the top of the page. This enables you to find the best fit for your data to the page or screen. It is also useful for creating maps that have the map boundary parallel to the survey direction or to maximize the coverage of the map for long narrow surveys. Additionally, it may increase some processing and visualization speeds by an order of magnitude or more.

Flexible and cost-effective subscription options

Your UXO Land subscription gives you affordable, single-user access to high performance technology for UXO detection, analysis and survey planning.

- Select from monthly, annual and multi-year subscription plan options.
- Adjust your plan to match your project and business needs.
- Add more subscribers as your team grows.
- Add more tools to your subscription to meet changing project requirements.
- Get continuous support and access to online learning resources in My Geosoft.

Explore more effectively

Efficiently automate routine data processing tasks. Streamline your workflows to save time and allow you to focus on generating outcomes that drive results.

Collaborate across disciplines

Effectively share and progress your results with team members and knowledge experts. Work together to better manage project risk, costs and timelines.

Make confident decisions

Connect your 3D model with the original data to validate your thinking. Iteratively build and refine your 3D results as new data is collected and becomes available.

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