



# CODEVINTEC

Tecnologie per le Scienze della Terra e del Mare

## UXO Land

### A complete solution for locating and assessing UXO targets



#### Market-leading software for UXO surveys

UXO Land provides a full suite of tools to locate and analyze UXO targets based on magnetic (total field and gradiometer) and electromagnetic (EM61) data.

A single workflow takes you from survey planning to target identification.

#### Features

- > Easily process and visualize large volumes of data
- > Quickly perform quality control and quality assurance
- > Effectively locate and analyze UXO targets
- > Optimize survey planning and reporting



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## Full Featured and Adaptable

### Data QA and QC

Use a comprehensive set of quality assurance (QA) and quality control (QC) tools to identify and correct instrument and acquisition errors. Address repetitive data quality issues to prevent resurveying and improve productivity in UXO investigations. Automatically document results of standard QA/QC tests. Meet government data quality standards with tools to standardize the QA/QC process when collecting, processing and analyzing data for US Army Corps of Engineers (USACE) projects.

### Data Processing

Process your data, and apply numerous filters and enhancements with ease. Pre-process large volume total field and vertical gradient magnetic survey data as well as EM61 survey data. Apply lag, heading, sensor offset and base station corrections to remove unwanted signal from data. To improve signal to noise, use spatial, non-linear, and vertical derivative filters to enhance your data. Create an analytic signal grid from magnetic data to position positive peaks over the center or edges of potential UXO targets.

### Target Selection

Pick targets from both magnetic and EM data. Automatically pick targets from profile data or grids. Pick peaks from analytic signal or dipoles from total field magnetic data. Interactively select additional targets from profiles and grids. Refine your final target list with interactive target editing and grouping tools.

### Target Analysis

Visualize UXO targets and conduct further analysis. Inversion and depth/size calculations help to characterize UXO targets and provide more accurate locations. Calculate the depth to source from a ratio of responses from the top and bottom EM coils. Measure the anomaly size by calculating the distance from the peak of an anomaly to its first inflection point. Apply Euler deconvolution tool to calculate the apparent depths of selected magnetic targets.

### Planning and Reporting

Access a variety of tools to make your survey planning and progress reporting more effective. Map making tools enable the creation of UXO target maps for visualization and display of the target locations and reporting. Create an audit log to track all data processing as a historical archive record.

## Expand your UXO Solution

Add more capabilities to your Oasis montaj UXO Subscription with extensions for marine magnetics (UXO Marine) and advanced classification and analysis of UXO targets with UX-Analyze.

### UX-Analyze

A powerful solution for classification, modelling and analysis of UXO targets using advanced electromagnetic sensors. UX-Analyze extends the functionality of UXO Land to provide a complete solution for UXO surveys.

### Features for geophysical target analysis and classification

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- > Set the project parameters
- > Import the target data
- > Define and refine anomaly footprints
- > Perform data corrections
- > Batch fitting a list of targets
- > Inspect and refine existing targets
- > Add new targets
- > Classify targets
- > Manage target lists
- > Produce maps and a progress report

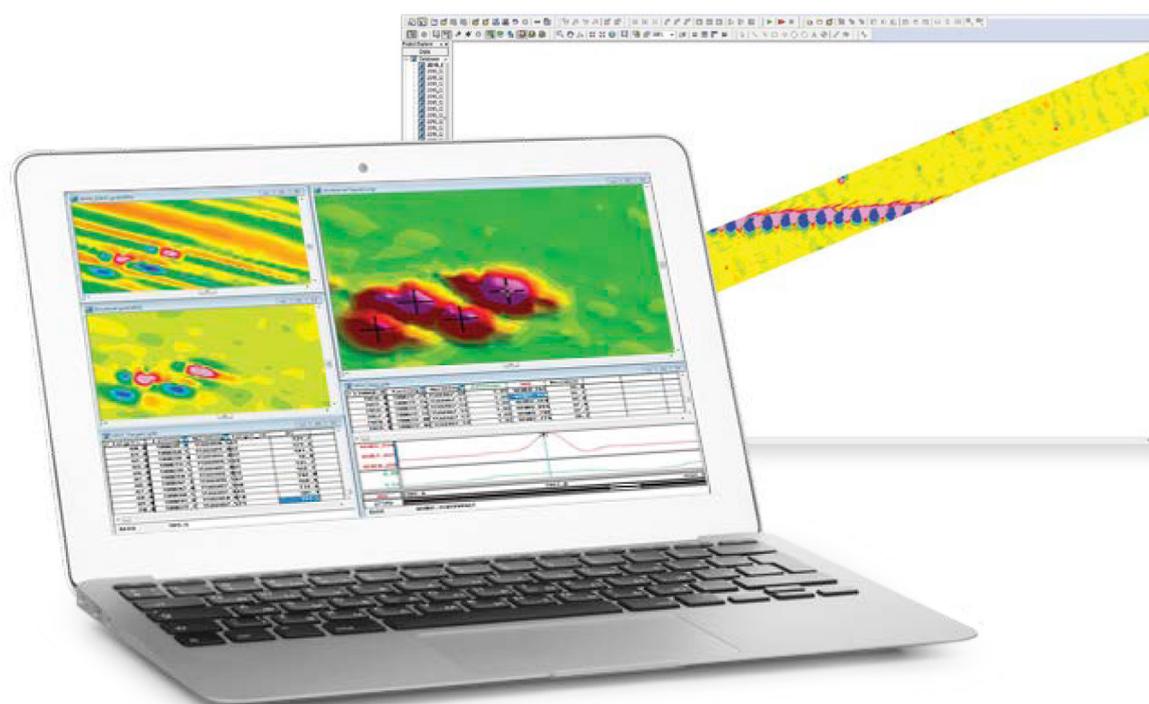


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# UXO Marine

## 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.

### Features

- > 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.