Overview
UX-Process is an ongoing project in its 8th year of development and deployment. This project provides software free of charge to US government agencies and their contractors working on UXO projects. Currently ~225 UX-Process licenses are in use. The software package includes over 70 menu items and the main capabilities include:
• A standard platform for geophysical and navigation data manipulation, corrections and processing;
• Tools to standardize the QC/QA processes;
• Tools for target analysis and management;
• Tools for survey planning and progress reporting;
• A standard platform for algorithm sharing.

This project is sponsored and funded by the ESTCP and administered by the Huntsville Center through a Cooperative Research and Development Agreement (CRADA) with Geosoft Inc. Contributory funding is provided by both Geosoft and the Center.

Examples of New Features and Enhancements

Process Repeatability
Figure 2: Process repeatability: Given the original and repeat survey grids, the repeatability of the data is examined by subtracting the grids. The outcome is a map with the original survey grid and the repeat survey grid as an overlay, the repeat is subtracted from the original. The resulting map indicates the difference between the two grids passed a certain threshold.

Find Magnetic Dipoles
Figure 3: Find Magnetic Dipoles: this tool has been enhanced to offer the user the ability to display peaks to an existing map, and to choose the location of the associated legend.

Move Dipoles
Figure 4: Move Dipoles: this tool has been enhanced to offer the user the ability to display peaks to an existing map, and to choose the location of the associated legend.

Pick Peaks along Profiles
Figure 5: Pick Peaks along Profiles: this tool has been enhanced to save the located peaks into the survey database. Furthermore it makes use of the anomaly width and half-width as criteria to filter the peaks.

Calculate Signal, SNR, and Size
Figure 6: Sample of Process Repeatability map.

Figure 7: Instrument Latency Correction: A new option has been added to the UX-Process interface to enable the user to concurrently display on the resulting map the profiles before and after the corrections were applied. The corrections can be visually evaluated on the map or read from the database. The parameter added enables the user to override the result of the automatic target picking program by interactively moving the poles.

Figure 8: A sample of Latency Correction map.

Figure 9: Find Peaks along Profile: this tool has been enhanced to save the located peaks into the survey database.

Figure 10: A sample of Find Peaks along Profile survey database.

Figure 11: Calculate signal strength, SNR, and size: The algorithm for locating the target has been modified to have a tighter control on its placement. As well as for each target a quality indicator channel has been added to alert the user to this occurrence.

Technology Transfer
The UX-Process software is available at no cost for US government personnel and their contractors, or if you have an existing Oasis montaj license.
You simply need to request the license at: http://www.geosoft.com/pinfo/industry/uxo/uxprocess.asp
The US Army Corps of Engineers - Huntsville Center will host their annual free workshop with Geosoft trainers in early 2009.
The purpose is for contractors and government employees to learn how to use the UX-Process software tools developed under ESTCP funding. The timing will be dictated by the release date of Geosoft Oasis montaj version 7.1.1.

Users and interested parties are encouraged to use the UXOnet online user forum as a venue to discuss software issues, post announcements and ask questions of colleagues.
Forum topics include Oasis montaj, UX-Process, UX-Process and related software. You can subscribe to this forum at:
Please contact us with any questions.

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