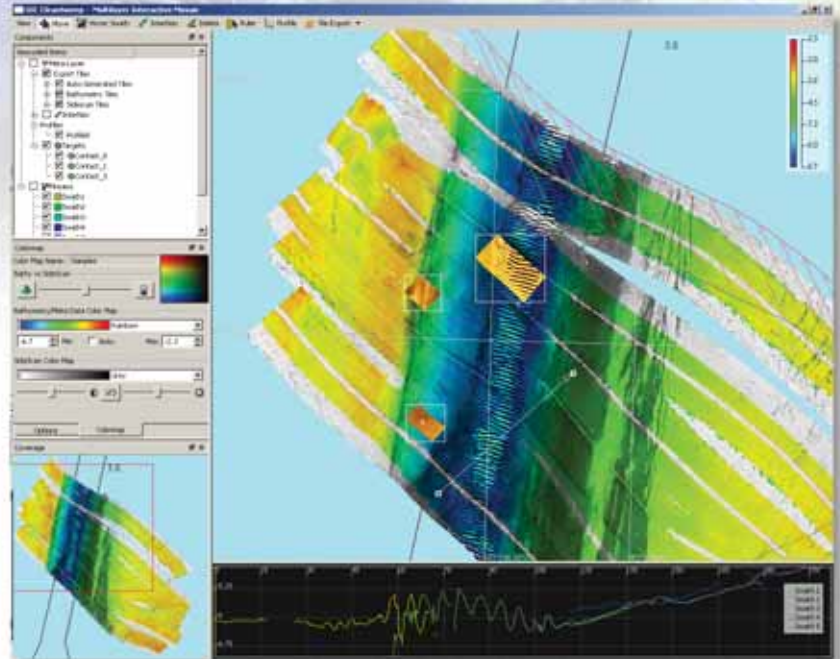


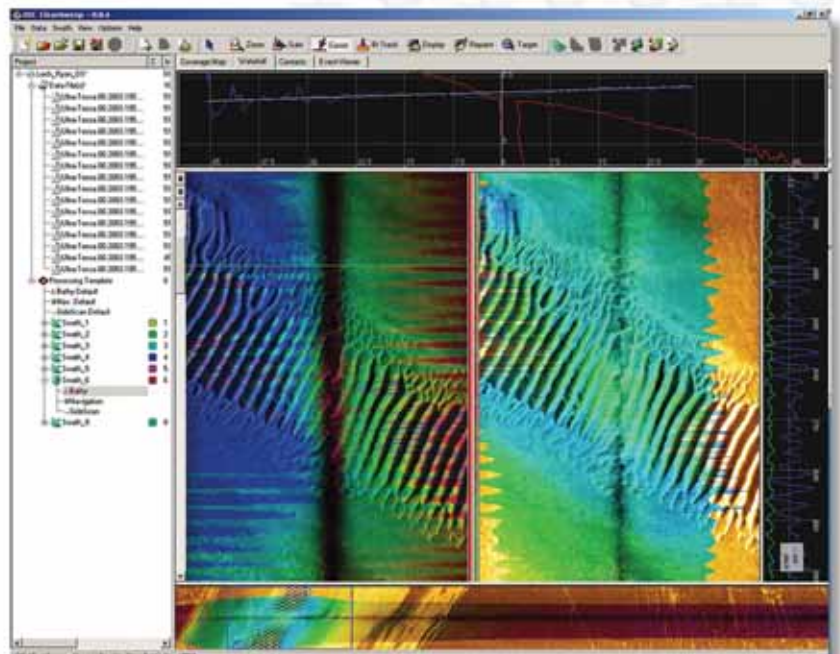
CleanSweep builds on the legacy of our Unix-based OIC Toolkit, providing a more powerful solution for your data processing needs.

Post-Acquisition Processing for Sidescan & Bathymetry

- Point and Click interface allows easy loading and selection of just the data you want to process. All Processing work is saved in projects. Imagery and Bathymetry data can be processed concurrently.
- Integrated navigation/attitude editor for meta-data cleaning, compensation of latency and offsets and re-navigation based on true fix data. Exclusive navigation based on imagery tool (InterNav).
- Advanced Sidescan processing capabilities: ground-range correction, beam-pattern and artifact filters, contrast enhancements. Interpolated filters creates a seamless sidescan image. Support for Laser Line Scan data.
- Bathymetry processing provides full attitude, tide and refraction corrections and advanced cleaning filtering. Supports multibeam and interferometric sensors.
- Exclusive multilayer interactive mosaic engine. Each mosaic swath can be removed, edited and layered in real-time without re-geocoding the whole data set. Features include: mosaic statistics for QC, multi-point bathymetry profile, target / navigation lines overlay, unlimited number of swaths at any resolution.
- 3D Swath viewer features sidescan draped over bathymetry, profile / point / surface rendering modes, multi-profile editor, sun illumination and vertical exaggeration.
- Target marking and target database tool. Target images are geocoded as a hi-resolution mosaic to accurately render target orientation and shape.
- Target database can be exported to GeoTIFF, XML, HTML and shared between projects.



CleanSweep mosaic window, displaying interactive multilayer mosaic (sidescan and bathymetry), with high-resolution targets and bathymetry profiles draped over vector chart data.



The CleanSweep interface, showing raw and processed sidescan and bathymetry data.

Navigation/ attitude processing

- Smoothing and de-spiking filters
- Latency, bias/scale corrections
- Draft/tide correction
- Offsets correction
- Tow fish layback computation
- Exclusive navigation based on imagery tool (InterNav)

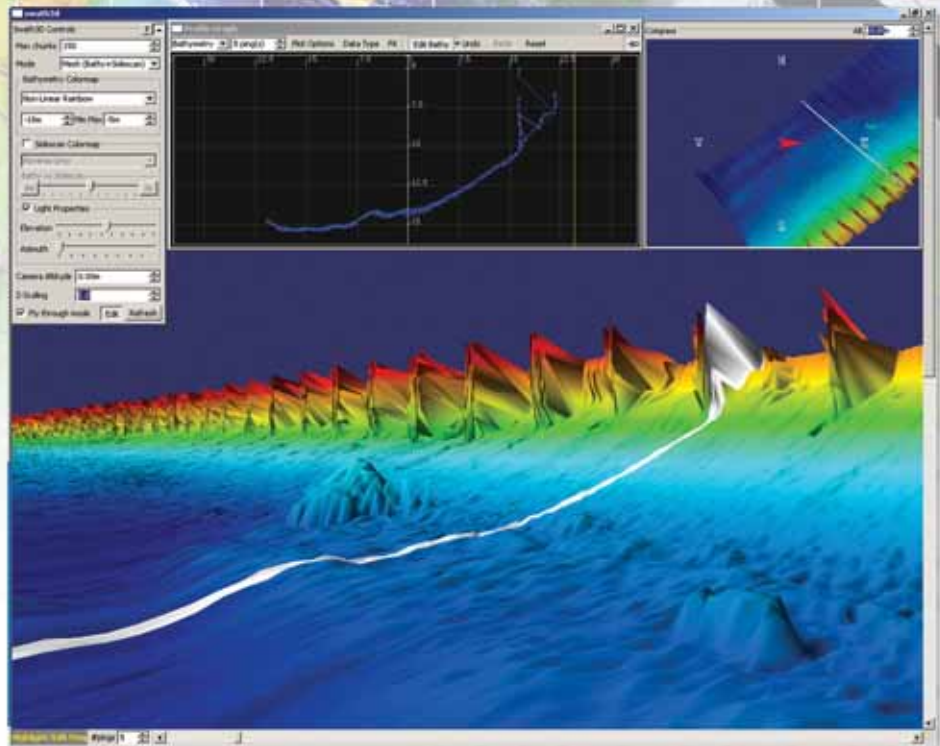
Sidescan Processing

- Contrast Enhancement
- Hardware gain change correction
- Advanced beam-pattern correction
- Time Varying Gain compensation (TVG)
- Slant-Range, ground range and bathymetry backscatter angle trimming

Advanced Targeting Module: geo-corrected target with actual size and orientation. Easy target marking and management with a drag-and-drop interface, height from shadow measurement, XML/GeoTiff import/export and HTML target report ready for web publishing.

Bathymetry Processing

- Motion compensation
- Beam filtering (angle / depth / ground range)
- Advanced quality assertion filtering (quality profile, seabed profile approximation)
- 3D Swath Viewer (point cloud, profile line, and surface+sidescan draped-over rendering).
- Profile/point editor tool.
- Refraction correction using sound velocity profile.



The CleanSweep 3D mosaicking tool provides single-ping-level control over data analysis and editing. (Data provided courtesy Dr. T. Komatsu, Tokyo University Ocean Research Institute)

GeoCoding and Mosaicking

Exclusive interactive mosaic allows for real-time composition of the mosaic. No need to reprocess all of the data set, swaths can be merged, layered or removed from the final mosaic interactively.

Multi-resolution imagery / bathymetry overlay

Background chart option. Support for vector format (i.e. DNC, ENC/S-57, DXF, VPF) and raster format (i.e. BSB, GeoTIFF)

Statistical quality control

Multilayer display on the mosaic: Targets images, sensor position, Longitude /Latitude grid

Data

Reads OIC, XTF, Edgetech™ JSF, Simrad packets, Klein™ SDF, HSX and MST™ data formats

Support for monobeam, multibeam and interferometric data

Support for sidescan, bathymetry backscatter/snippets and laser line scan data.

Export Options

Advanced export assistant includes easy click-and-drag export area definition. High resolution export file can be automatically tessellated for easy handling. Export to GeoTIFF (8 and 24 bit), GRD grid, Ascii XYZ, LLZ, OIC grid.

Repeat surveys made easy with export project option. Survey area tessellation only needs to be defined once before being exported to subsequent survey projects to be used as template. This tool makes area-based comparison of repeat survey data easy and reliable.

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