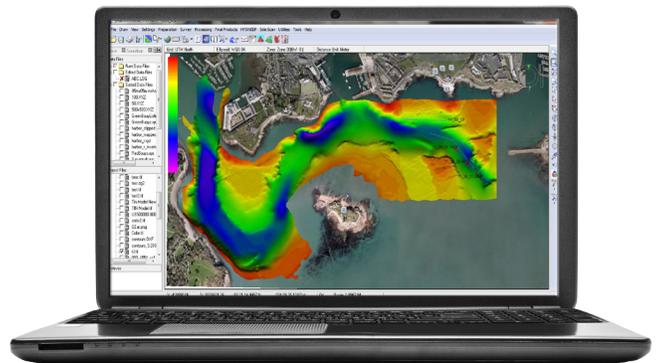


# HYPACK®

SOFTWARE FOR HYDROGRAPHIC DATA COLLECTION, PROCESSING AND FINAL PRODUCTS

## About HYPACK®

HYPACK® is one of the most widely used hydrographic software packages in use today. It is designed to assist you in all of the hydrographic operations, with software that is straightforward and simple to use. The software package provides the tools needed to design, acquire and process your survey data, and create the final products needed. Tools for creating contours, computing volumes, creating sidescan mosaic and create electronic charts (ENC) are part of the package. Over two hundred sensor inputs provide the connection for all types of GPS, Inertial systems, echo sounders, sidescan and sub bottom, magnetometers, velocity sensors and more. HYPACK® is more than a navigation software; it's your complete hydrographic package from planning to deliverable.



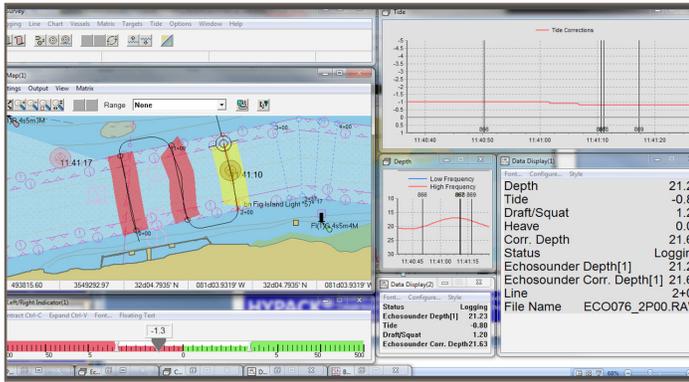
## Benefits

- HYPACK® is a standard package for many hydrographic organizations
- Effective solution to meet your survey needs
- Online and phone support provided by our experienced support team
- It is easy to set-up, user configurable, and allows you to connect to virtually any sensor on the market today

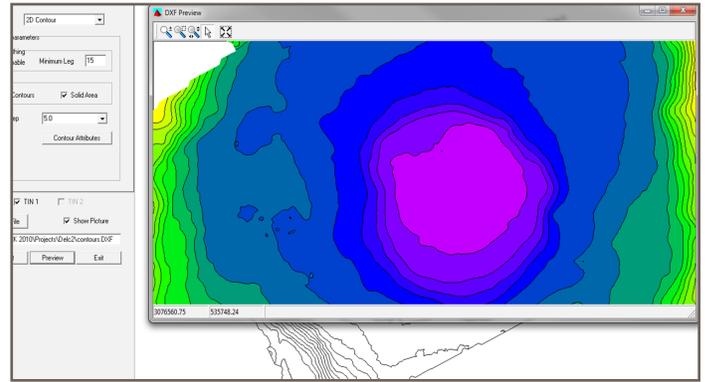
## Features

- Simple to use survey planning for line creation, with support for worldwide geodesy models
- Real time navigation display, support for remote helmsman and survey view
- Processing tools allow for simple to use data cleaning, with both manual and automatic filters
- HYPACK® data files are easily exported to XYZ, CAD, DXF and dozens of other formats

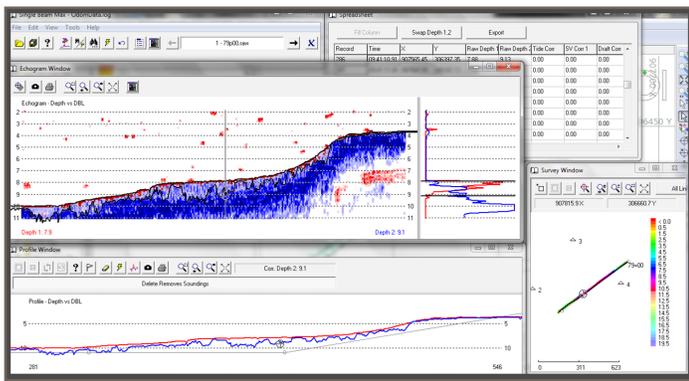
# Included in HYPACK®



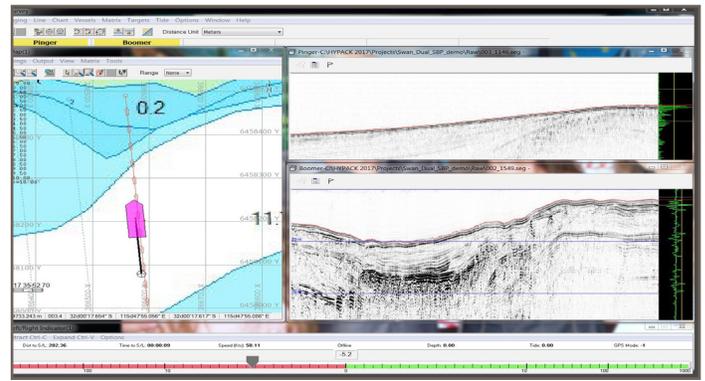
The HYPACK® SURVEY program provides you with the visual feedback needed to get your survey job done right.



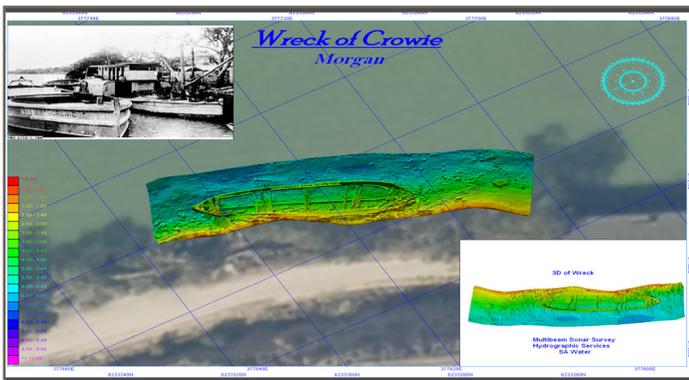
The TIN MODEL program creates surface models, generates DXF contours and computes volume quantities. Export gridded XYZ or BAG surfaces.



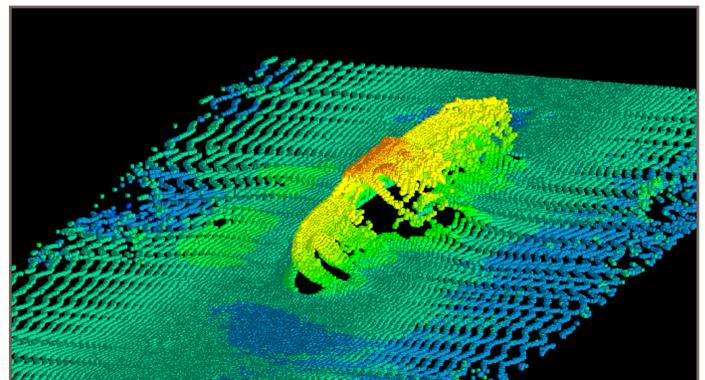
The SURVEY program handles input from over 200 devices: GPS, inertial systems, sub-bottom systems, single and dual frequency echosounders and magnetometers.



HYPACK® supports both analog and digital sub-bottom systems. It saves your data to industry standard SEG-Y. It's a standard feature in HYPACK®.



HYLOT lets you output smooth sheets to your printer or plotter, or save them to PDF or DXF. Choose from an array of borders and sheet options. Design your own title block.



The CLOUD program can be used for data review. It accepts HYPACK® data, XYZ data, or LAS files.

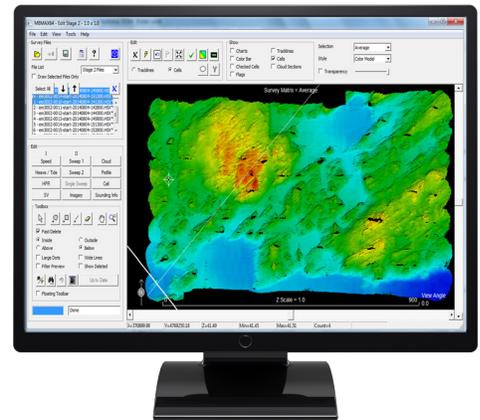


# HYSWEEP®

SOFTWARE FOR CALIBRATING, COLLECTING AND PROCESSING MULTIBEAM, TOPOGRAPHIC LASER BACKSCATTER AND WATER COLUMN DATA

## About HYSWEEP®

HYSWEEP® is the add on module to allow for the data collection and processing of your multibeam sonar and lidar systems. Tools for system calibration (Patch Test) make the set up simple to do. Online displays for real time CLOUD shows the system in operation. Processing large data sets are efficient with the 64 bit processing module. The software interfaces with nearly all multibeam sonars on the market today.

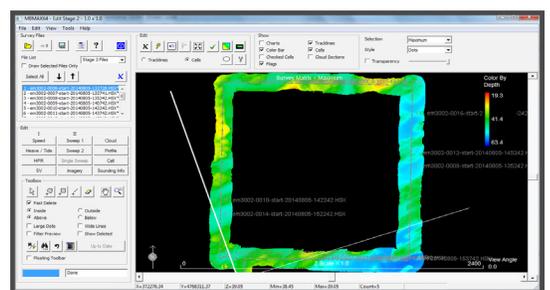


## Features

- Acquisition of backscatter, intensity and water column from multibeam sonars can be done simultaneously with the sounding data
- Complete software package for acquisition and processing
- Tools for data analysis include CUBE, Wobble Analysis, Beam Angle Test
- Export to ASCII XYZ, LAS, Matrix file and custom format. Data can be gridded to a dozen different methods, including average, mode, median, standard deviation and more.

## Benefits

- The HYSWEEP® Patch Test is simple to use, with just a few survey lines needed to run for an automatic computation of the mounting offsets.
- HYSWEEP® Survey provides the real time coverage display, TPU and other QC tools for a real time analysis of the data - before you go back to the office for data processing.



## Included in HYSWEEP®

HYSWEEP® SURVEY provides you with a coverage plot, real-time TPU displays, and QC tools needed to efficiently complete your multibeam survey.

**REAL TIME POINT CLOUD:** The program runs in conjunction with HYSWEEP® SURVEY and displays both multibeam and topographic laser data in a corrected and geo-referenced, color-coded point cloud. The REAL TIME POINT CLOUD program is useful for easier feature detection and data quality control.

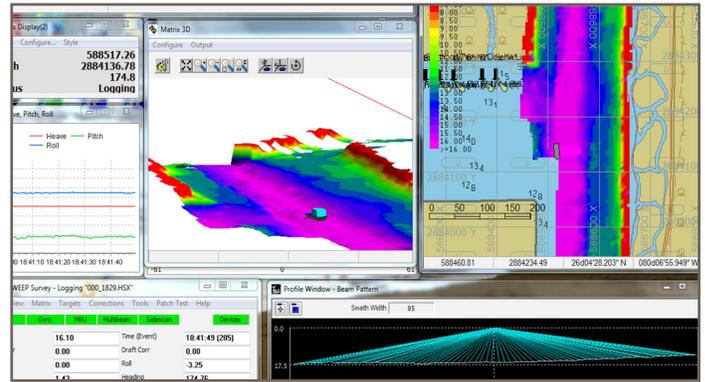
The HYSWEEP® Water Column Logger allows users to ensure that targets above the seabed, such as wrecks, are fully detected, and to confirm the least depth in the water when fine features such as cables or masts may otherwise be missed with the multibeam sonar.

The HYSWEEP® multibeam editor allows you to review your raw data components, incorporate sound velocity and water level corrections (including RTK TIDES and VDATUM), and apply statistical filters to quickly clean your data and output a variety of data subsets.

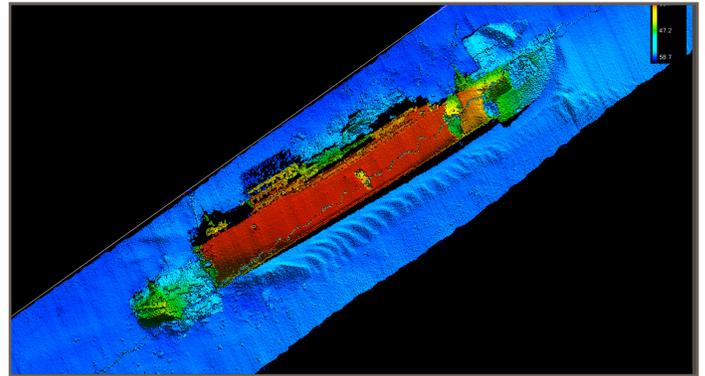
GEOCODER™ is included in the program (licensed from UNH-CCOM) and allows you to generate mosaics and perform bottom classification from average backscatter and snippet data.

### HYSWEEP® includes interfaces for the following systems:

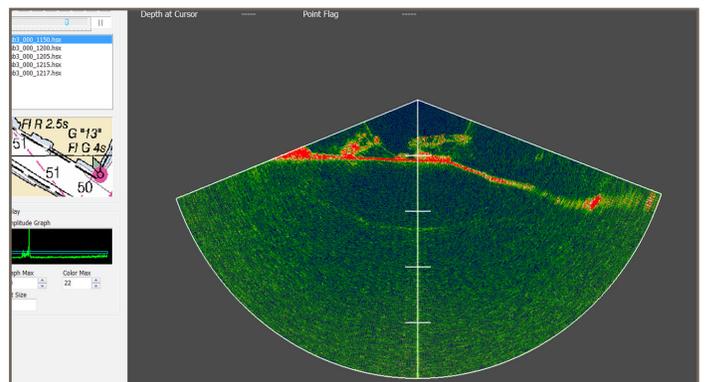
Atlas, Fansweep, Hydrosweep	Odom ES3, MB1, MB2
Bathy Swathplus	Optech ILRIS
Blueview multibeams	PingDSP 3DSS-DX
Edgetech 4600 and 6205	R2Sonic Sonic 20XX Series
GeoAcoustics GeoSwath	Reson 71xx, 81xx, 91xx, T20, T50
IBeam	Riegl LMS and V Series
Imagenex Delta T, DT100,101,102	Reinshaw
Kongsberg MS1000	Ross Smart Sweep
Kongsberg EM1002/2000/2040/710	SEA Swath Plus
Kongsberg EM 3000/3002/3002D/302	Seabeam 2100/3000/SB1000
Kongsberg Mesotech M3	Tritech Gemini
Klein HydroChart	Tritech SeaKing
Leica PS20	Velodyne HDL, VLP
Norbit WBMS	WASSP Multibeam



The HYSWEEP® SURVEY program showing 3D Seafloor, Beam Pattern, Coverage Map, and Motion Correction. Over 20 real-time windows can be chosen.



HYSWEEP® includes 3D visualization and processing tools using our CLOUD program.



The HYSWEEP® WATER COLUMN PLAYBACK allows you to replay the water column data provided by modern multibeam sonars.