



- RESON products for accurate and efficient surveying
- •Full support for Multibeam and Laser surveys
- Powerful MBES processing module with 3D swath area editor, integrated calibration module and SVPEditor
- Support of Bottom Classification and snippet mosaicking using geocoder normalisation
- •Volume calculations
- Charting module





PDS2000-Multibeam

RESON is one of the world leaders in singlebeam and multibeam echosounders, dredge guidance systems and hydrographic software.

RESON's in-house developed PDS2000 Multibeam is designed to efficiently create high quality, fast results - whether it is for multibeam surveys, singlebeam surveys, construction or dredging works.

PDS2000 for Multibeam Surveys provides the functionality for survey planning, data acquisition, data processing, editing, volume calculations and chart production. This turnkey solution offers the surveyor and helmsman a strong tool to carry out the Multibeam survey efficiently. Progress is shown realtime in 3D views and topviews using a color-coded Digital Terrain Model. Various filter settings can be applied to the Multibeam data online, thus providing real time data processing. QC displays reassure the operators that the data is of the desired quality. The new 3D editing module combines 3D swath editing, DTM modeling and editing, CUBE modeling. Combining all these features in to ONE module saves a lot of time for the data processor. While clreaning swath data your CUBE and DTM model are updated on the fly!

After data processing the data can be used for volume calculations and charting. The chart model offers the operator quick plot results specially when repeated surveys are to be plotted. The plot module has proven to be one of the **best available on the market**!

Optionally data can be exported to a GIS database for more efficient data management.

RESON has proven that PDS2000-Multibeam is an aid to cope with any of your projects.

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PDS2000 Multibeam Application

PDS2000 MULTIBEAM

RFS

- Complete software suite for acquisition, processing and charting
- The tool for efficient and accurate results
- Capable to handle large data sets
- •Powerful and fast Multibeam calibration tool, combined in processing module or stand-alone
- •3D swath area editor combined with DTM and CUBE modelina
- Integrated SVPEditor
- Strong integration with Seabat 7K series
- Easy to extent to other PDS2000 applications

INTERFACING

- Positioning systems, Compass Motion sensors
- PPS interfacing
- •SSS and snippets data from SeaBat systems
- Sound velocity probe
- Singlebeam echosounders
- Laser Scanners
- Tidal information
- Magnetometers
- Configurable input/output

PLANNING

- Routes, Track guidance lines, Waypoints
- Multiple DXF charts can be read simultaneously
- Digital Terrain models
- 3D design TIN models
- •3D design models creation from polygons and **3D-DXF** files
- •Use another DTM as design
- User defined Charts

SURVEY OPERATION

- Acquisition, time stamping and logging of all sensors in a single file
- Navigation charts: DXF files, C-MAP, S57 import, Tresco charts, Geotiff, User defines Charts
- Shows DTM colour-coded for depths and differences with design or previous survey.
- Profile displays show Multibeam data

2D and 3D Planview with progress of survey

- TPE error view
- Display for SSS and Snippet data
- •Status views of equipment, logging and alarms
- Multibeam data online flagged for Filter settings

RESON One supplier for your project solution

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PROCESSING

- Data ready to process directly after data acquisition
- •MBES data processing module includes:
 - •Integrated 3D swath editor with automatic filtering functions agains CUBE or DTM model. CUBE and DTM modeling with edit and
 - interpolate functions.
 - •CUBE and DTM models are updated on the fly while editing swath data
 - Adding/changing filters as used online
 - •SVPEditor with instant correction in profile box Dedicated fast and reliable MBES/Laser
 - calibration function
- Quick calibration function for check on large data sets
- •3D boxes for closer inspection/detailed editing.
- •All editors have a multiple UNDO/REDO function
- Position editor shows position with navigation chart in background
- Tidal data editor
- •All editors show the validated data and/or the original data
- SSS and Snippet views
- •All editors in one screen layout: Synchronised processina
- •DTM data shows the following items color coded: depths, minimum, maximum, standard deviations and hits per cell

CHARTING

- Powerful tool for generating charts
- Multiple planviews / Multiple profiles possible
- Depth contouring
- Text, descriptions and images
- Plot profiles

VOLUME COMPUTATION

- Compute volumes and generate reports
- Volumes computed from DTM gridmodel
- •Design model can be:
 - Profile design
 - •3D TIN model from 3D dxf format
 - Digital Terrain Model

EXPORT

 Export MB data to various formats (CSV, Excel, XYZ, ESRI grid)

•MB data export to XTF, CARIS, IVS and Neptune **OPTIONS for PDS2000 Multibeam**

USBL Tracking option

ROV option including USBL and Doppler log

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