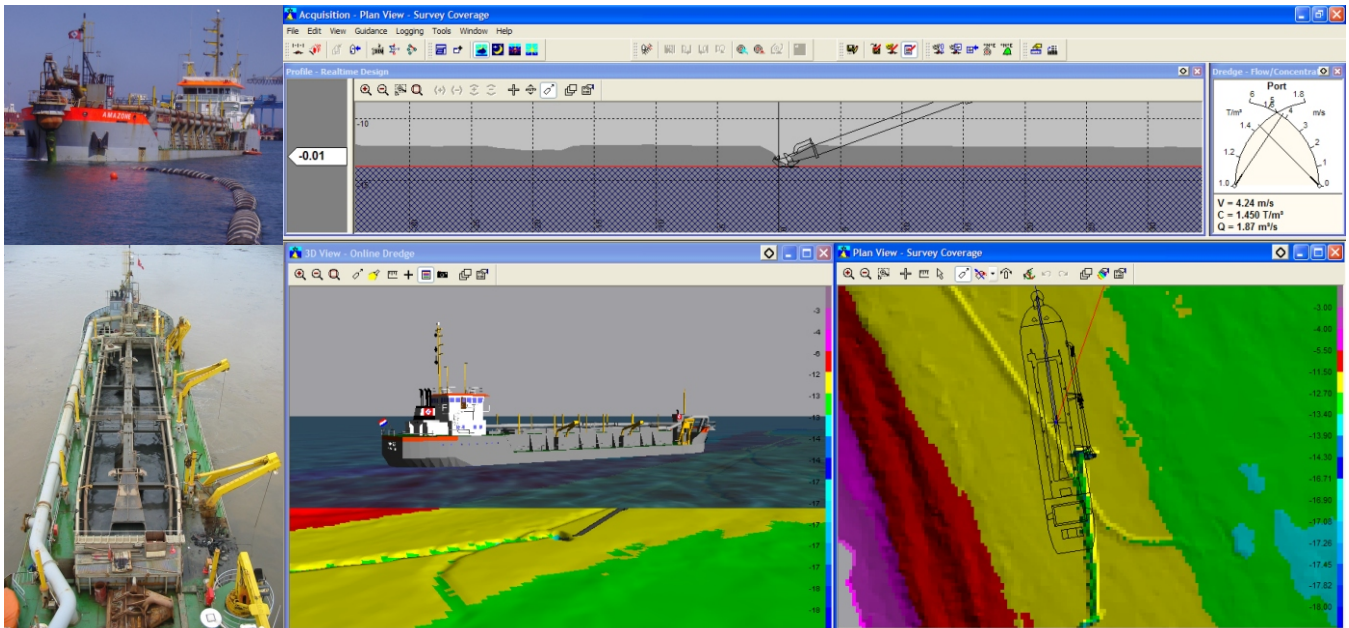




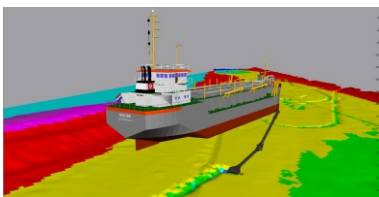
# PDS2000

## Trailing Suction Hopper Dredger



### PDS2000-Hopper

- **Direct interface with sensors, no other software required!**
- **Supports Density and Concentrations sensors**
- **Supports DLM and TDS computation (option)**
- **Restricted areas function**
- **Support real-time 3D design models**
- **Support integration of Multibeam echosounder in to one package**
- **Integrates seamlessly with other PDS2000 applications**
- **Free network option to allow multiple Pc's in one group**



PDS2000 is a software package for hydrographic survey and dredging operations developed by RESON. PDS2000 is available for different applications tailored to specific operations. The PDS2000 dredging applications cover a full range of dredging equipment such as Cutter Dredgers, Hopper Dredgers, Clamshell, Bucket dredgers and Excavators. Each application is specially designed to meet your requirements.

RESON supplies fully integrated Monitoring Packages, which includes a range of potmeters, inclinometers, ruggedised PC systems, positioning systems, motion sensors, tide gauges, draft sensors and our PDS2000 Software.

PDS2000 for Trailing Hopper Dredgers provides the functionality especially designed for the dredge operator to carry out his job more efficiently. The operator has an instant overview of the dredger with the top and side views displaying the vessel outline, suction tubes and the dredge head in great detail. PDS2000 supports horizontal and vertical presentation of the suction tube. Alarms can be generated when the tube radius passed a pre-set bend. The flexible screen layout allows operators to adjust their screens to their needs. A grid-model is updated real-time registering the progress of the dredging work, this in combination with a 3D design. The updated Real-time models supported are differential, update and production models. The grid model follows the shape of the dredgeheads. The update is immediately visible in the top, side and 3D views. The use of 3D-Design models allows definition of highly complex designs. The position of the dredge-head relative to the design is constantly monitored and displayed.

Concentration, flow, vacuum and pressure data can be displayed as well or used in the DLM and TDS options. The DLM and TDS are options to PDS2000-Hopper, DLM reports are generated automatically. A trip reporting option is available, this data can be linked to Dredge Information Systems maintained by certain Port Authorities. Trip reporting can be done automatically when PDS2000 is interfaced with the pump, valve and hopper door switches



# PDS2000

## Trailing Suction Hopper Dredger

### GENERAL

- User friendly
- Modular set up
- High Screen update rate, updates as sensor values arrives
- Easy to adapt to your project
- Complete software suite for acquisitions, processing, charting and dredge guidance
- What you See is What You Dredge

### PROJECT SET UP

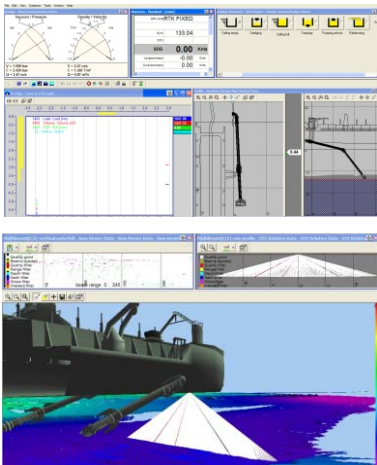
- Wizard guides you through the setup
- Configuration of all equipment and lay-out of the vessel
- Import of DXF file from Vessel shape

### PLANNING

- Import different types of DTM's directly from the PDS2000 office or survey vessel
- Edit and/or interpolate DTM's
- Import dredge design from a 3D-DXF file (AutoCad)
- Use another DTM as design
- Create design from profiles and polygons
- Restricted areas
- Vessel placement to return to same area

### INTERFACING

- All common positioning and tidal systems
- Flexible interface with sensors such as:
  - Inclinerometers
  - Potmeters
  - Motion sensors
  - Draft sensors
  - Hopper level sensors
  - Density sensors
  - Flow sensors
  - Pressure sensors
  - Vacuum sensors
  - Various contact closures



### DREDGE OPERATION

- Acquisition, time stamping and logging of all selected sensors in a single file
- Show historical dredge tracks
- Load various types of background charts while dredging
- Electronic Navigation chart
- C-MAP (optional)
- DXF files
- Geo-Tiff images
- Update or fill DTM in real-time with depth information from Dredgehead(s)
- Support of Production and differential DTM's
- Presentation of scaled vessel shape and dredgetool in one or more side views (left, right, back and front).
- Show real-time profile of DTM and design in the side view(s).
- Show detail of design depth difference in side view
- Online correction for:
  - Roll/pitch/Draft of vessel
  - Offsets
  - RTK height or tidal information
  - Mounting angles of sensors

### REPORTING

- Trip report, automatic track plot of last track
- Entire dredge operation can be reviewed through a replay of the data set
- DLM and TDS reporting
- Dredge status report for interface to Dredge Information Systems
- Quick profile plots can be made using the offline plot module (option)

### PROCESSING

- All logged signal are available for later processing
- For more processing info see our data processing documentation



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