

CAPABILITY SHEET

DV MASTER DATA SHEET

FULLY INTEGRATED HYDROGRAPHIC SURVEY, OFFSHORE POSITIONING AND DREDGING SOFTWARE SUITE



SOFTWARE SUITE

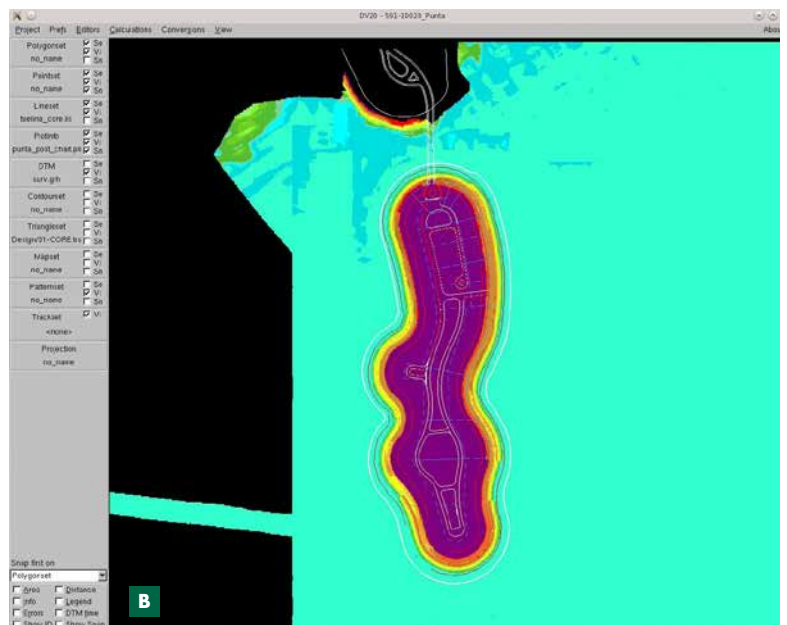
The Boskalis DV Software Suite is developed in-house for all survey, monitoring, positioning and production requirements to execute state-of-the-art hydrographic survey, offshore positioning, dredging and related operations.

DV is based on more than 25 years experience in developing software for the large fleet of Boskalis offshore, dredging and survey vessels. The Software Suite ensures quick and reliable transfer of survey information to where it is required - the operator's display, the project manager's desk and to the client and project engineer.

DV is a fully graphical modular package that is adapted to specific project requirements DV combines the proven stability of a Linux operating environment and unparalleled networking capabilities with the worldwide availability of off-the-shelf standard PC components, thus ensuring maximum system up-time.

The DV Software Suite comprises various modules all based on the same modular components and user interface, and sharing and interchangeable data format.

- A** Punta Pacifica project
- B** DV Office Punta Pacifica



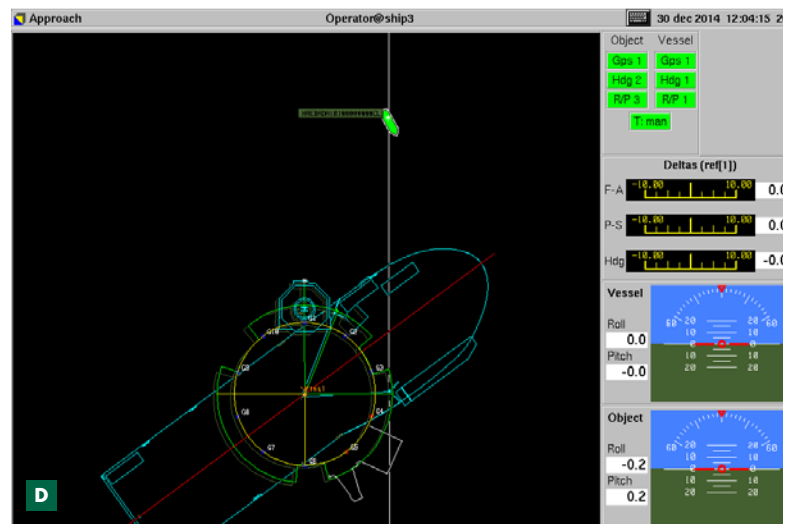


Currently, DV comprises the following modules:

- **DV Office**
Processing, calculation and presentation
- **DV Sound**
On-line survey data acquisition for survey vessels
- **DV Hopper**
Trailer suction hopper dredger positioning and production
- **DV Crane**
Backhoe and grab dredger positioning and production
- **DV Cutter suction dredger**
Cutter suction dredger positioning and production
- **DV Vessel traffic management**
Vessel traffic and anchor management system
DV Discharge Barge
Discharge barge positioning and monitoring
- **DV Diving support vessel**
Diving support vessel positioning and monitoring
- **DV Heavy transport vessel**
Heavy transport vessel positioning and float-over monitoring
- **DV Plough**
Plough vessel positioning and dredging
- **DV Cable lay vessel**
Cable lay vessel positioning and installation
- **DV Windfarm installation**
Monopile transition piece and jacket installation for offshore windfarm construction
- **DV Spreader pontoon**
Spreader pontoon positioning and progress
- **DV Barsweep**
Barsweep positioning and depth verification

DV processes the following data types:

- As-sailed single beam survey lines
- As-sailed side scan and sub bottom tracks (positioning only)
- Topographic surveys
- ASCII XYZ point files
- DTM triangulation models
- DTM grid matrix files
- Cross- and longitudinal profiles of all of the above
- Electronic chart files
- Pre-defined map layout and map location files
- DXF files for import and export to Cad systems
- Shape and LandXML for import and export to GIS systems



C Dockwise Heavy transport vessel Vanguard on Goliath Project

D DV Heavy transport vessel positioning display onboard Vanguard on Goliath project

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