



Clamshell Crane Dredge

TRIMBLE MARINE CONSTRUCTION SOFTWARE

Trimble Marine Construction software improves productivity and efficiency in underwater construction applications. It provides accurate 3D visualization to assist the operator with underwater construction tasks.

Efficient dredging

Trimble Marine Construction software for clamshell dredging applications is a powerful tool to help dredge operators improve productivity and efficiency. The operator has a real time overview of the crane, tool and barge in plan and profile views. Displays include the bucket position, bucket open/close status, bucket depth along with the surveyed and design depths.

Real time visualization and monitoring

Real time views of the dredger in plan and profile view displays the clamshell, design depths and color-coded Digital Terrain Model (DTM). The DTM highlights the high and low spots relative to grade and is updated in real time tracking the progress of the dredging work. The update follows the shape of the clamshell and is visible immediately in all the views. The system also shows the open/close status of the bucket. A built-in calibration procedure allows for easy calibration of the cable counters.

Real time seafloor and design

Up/down indicators show the operator the exact distance to the seafloor and design depth during movement. The software supports complex 3D designs.

Workflows

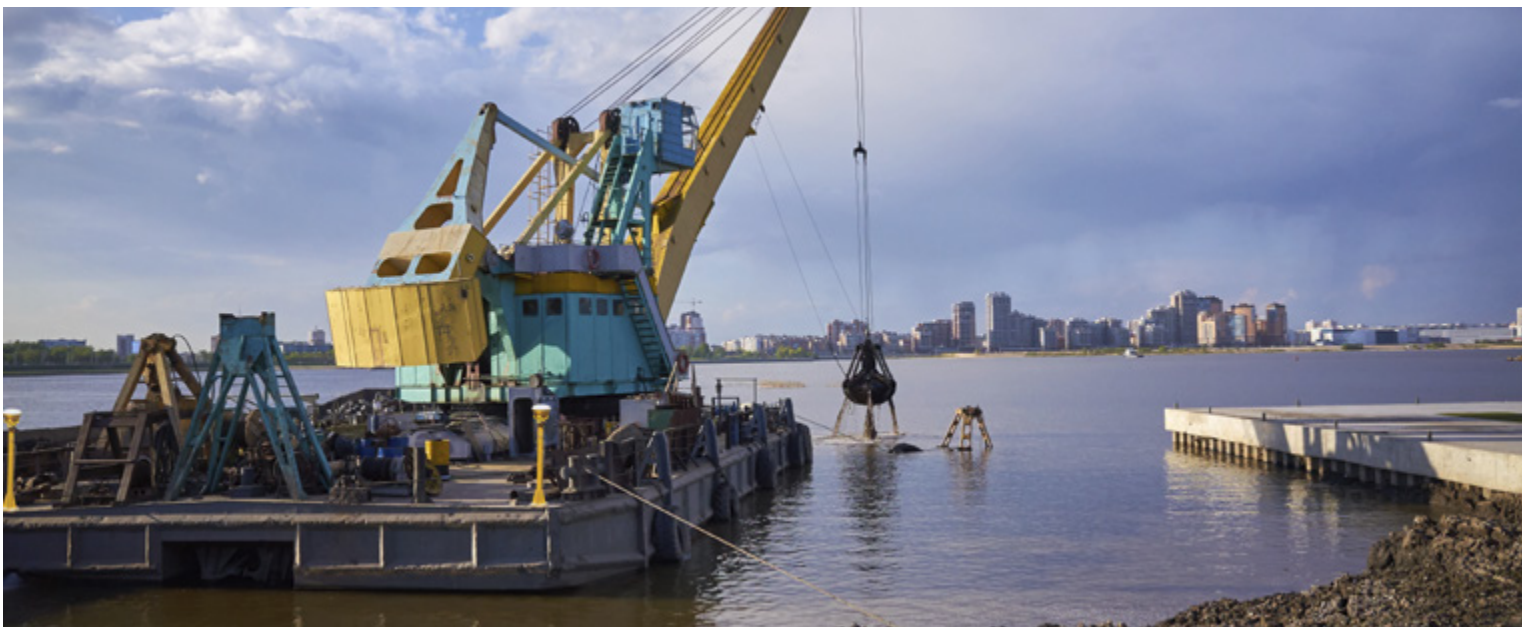
The software can also render views that show the difference between the grid model and the design model to quickly locate areas in need of attention.

Customizable interface

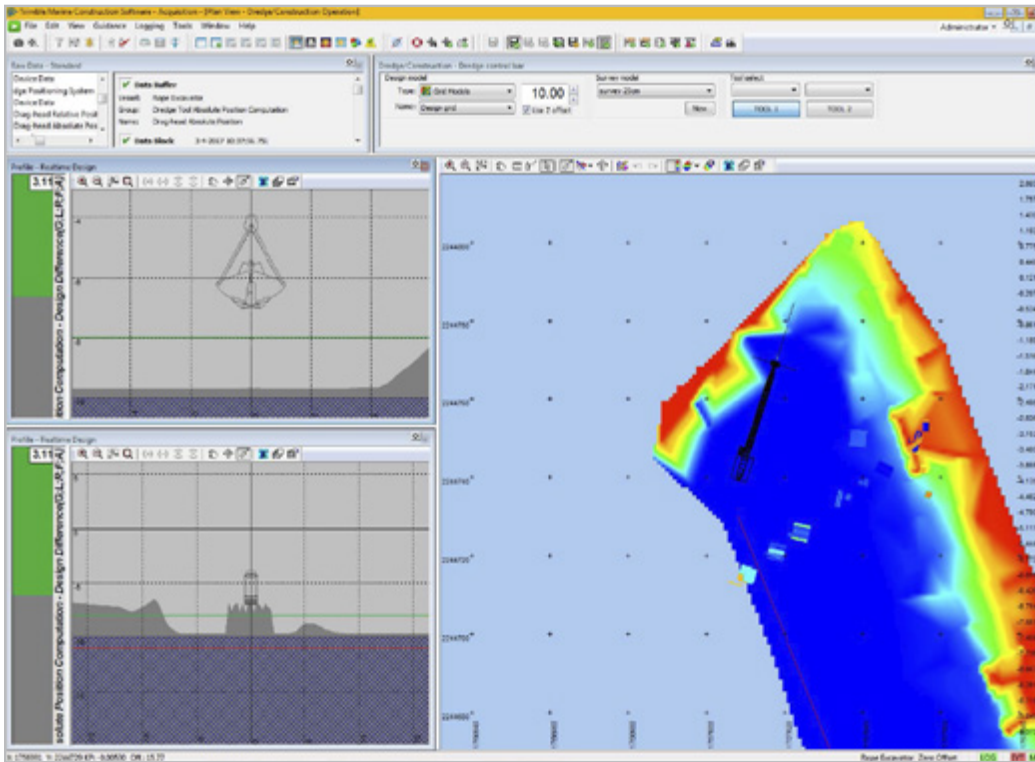
Multiple monitors with independent layouts can be tailored to the needs of the dredge operator. A color-coded plan view and 3D view highlights high and low spots. The surface Digital Terrain Model (DTM) is updated in real time registering the progress of the dredging work showing depth, differential and production models all updated according to progress of the cutter head.

Features

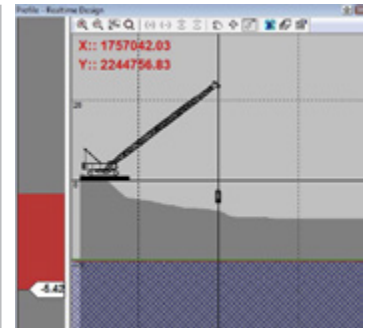
- ▶ Robust and reliable solutions maximize uptime
- ▶ Supports real time sonar inputs providing as-building capability
- ▶ Continuous data logging for as-building and volume reports
- ▶ Dredge tolerance visualization provides guidance for accurate, efficient dredging productivity
- ▶ Administrator can configure the screens for a specific workflow/user and lock it down for the operator
- ▶ Precise RTK can be used for precise tide and heave calculation
- ▶ Third party laser sensor for non-vertical wire tracking
- ▶ Create machine or vessel shapes or import models from CAD software including SketchUp® 3D modeling tool
- ▶ Diking mode facilitates material placement operations



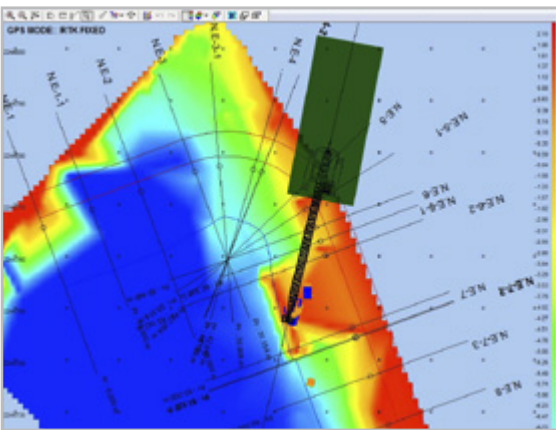
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Trimble Marine Construction software for clamshell crane dredge application - acquisition view



Trimble Marine Construction software for clamshell rope dredge application - profile real time view



Trimble Marine Construction software for clamshell crane dredge application - plan view

About Trimble Marine

Trimble offers flexible, high-performance positioning systems to meet the unique needs of marine construction on both simple and complex projects. Solutions include both hardware and software, and can be easily integrated into third-party systems. The portfolio includes marine information systems (e.g. Trimble Marine Construction software), GNSS receivers, antennas, radios, encoders, depth gauges and inertial positioning systems.



Trimble Marine Construction software is transforming the way marine operations work by helping build and maintain the world's port, river, canal and other critical infrastructure. Trimble continues to transform this industry's work across the project lifecycle through sophisticated planning and design, advanced automation solutions, site positioning, and real time connectivity.

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