



# Trimble Marine Construction systems



# Accelerate marine construction

Trimble® Marine Construction systems improve the efficiency and safety of your dredging, placement and hydrographic survey workflows — simple to use systems keep your operations working all day — and through the night.



Realize maximum productivity with highly-accurate systems that empower operators to work smarter, more accurately and avoid rework. Real-time 3D visualization provides accurate guidance and safer situational awareness, enabling marine contractors to work with greater precision.

Trimble solutions are robust and reliable and include hardware, software and GNSS correction services that can be integrated into third-party systems:

- Add sonar imaging for real-time as-built verification
- Add third-party sensors for non-vertical cable tracking and block orientation

## Machine guidance for dredging

Improve operational efficiency by dredging with more accuracy. Easily visualize the tool angle and position when using backhoe excavator, clamshell crane, cutter suction and bucket dredges.

Customers report **50%** faster dredging



## Machine guidance for placement

Easily place material and blocks to deliver projects on time and with centimeter-level horizontal and vertical accuracy. Maximize productivity with faster spotting time and reduce the need for divers to check work in dangerous conditions.

Customers report **4x** faster material placement

System benefits



24-hour operation



Safer situational awareness



Less rework



Centimeter level accuracy



Deliver customized reports

## Real-time visualization

Empower operators with graphics they can rely on to understand their progress in real-time. 3D, plan and profile views enable at-a-glance comparison between surveyed and design surfaces along with a color-coded digital terrain model (DTM) view that highlights the high and low spots relative to design. A variety of visuals help the operator to avoid rework and track progress of the project.

## Customizable interface

Multiple monitors with independent layouts can be tailored to the needs of the operator.

Up/down indicators show the operator the exact distance to the seafloor and design depth continuously

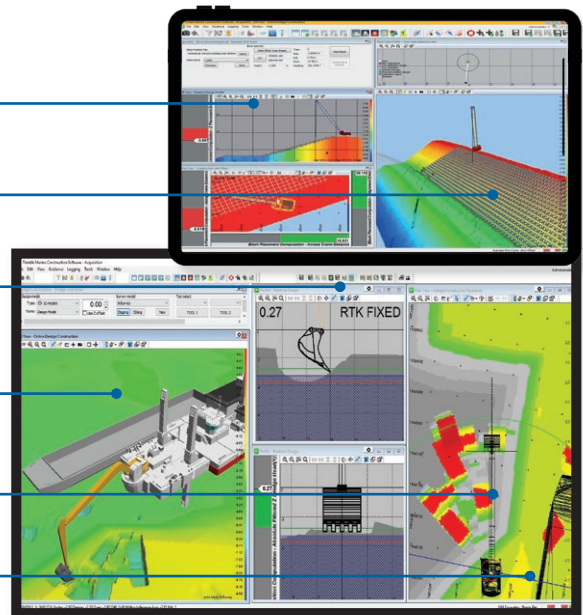
3D, plan and profile views

Tolerance visualization provides guidance for accurate, efficient dredging and placement productivity

Create or import models from CAD software for realistic visuals

Highlight under and over dredging in real-time

Continuous data logging for as-building and volume reports



## Single beam surveying

Confidently conduct your own pre and post-construction single beam hydrographic surveys with precision and accuracy. Accelerate your surveying and reporting with simple data acquisition, editing, plotting and dredge volume calculations. Reduce rework, increase productivity and improve site safety with a better understanding of the underwater environment.

Customers report <4 inch vertical survey accuracy

## Trimble Business Center

Rapidly create optimized 3D surveying, dredging and placement plans with Trimble Business Center software, then generate comprehensive quality and production reports.

## Trimble marine GNSS receivers

Category	Feature	MPS566	R750	R780	BX992
Precision capability	Precise RTK rover	+	+	+	+
	Precise RTK base	+	+	+	
Rover	Rover (30/30)	✓		✓	✓
	Rover (10/10)	+	+		✓
	Rover (10/2) (Precise vertical)	+	+		✓
	Precise tide and heave measurement	✓	✓	✓	✓
Precise heading	Dual antenna	✓			✓
	Moving base	✓	✓	✓	✓
Frequency	Triple frequency	✓	✓	✓	+
Constellations	GPS, GLONASS, QZSS, SBAS	✓	✓	✓	✓
	Galileo, BeiDou	✓	✓	✓	+
Correction services*	Trimble CenterPoint® RTX	✓	✓	✓	+
	VRS/IBSS/NTRIP	✓	✓	✓	✓
	Fugro Marinestar®	✓	✓	✓	+
General features	MSK Beacon	✓			
	Data logging	✓	✓	✓	+
	1PPS	✓	✓	✓	✓
	Max data rate	50 Hz 100 Hz (INS)	50 Hz	20 Hz	50 Hz
	Inertial (INS)	+			+
	Cellular	✓	✓		
	Wi-Fi®, Bluetooth®	✓	✓	✓	

\* Some correction services require a high precision capability and also may require a subscription. Ask your local Trimble Marine Dealer for more information.

## Trimble CenterPoint RTX Marine

Boost your on-site productivity and obtain the precision you need in marine construction and survey applications with Trimble real-time GNSS correction service delivering centimeter-level accuracy via satellite or the internet.



Trimble Zephyr™ 3 rugged | R780 GNSS system | DL450B radio | BX992 GNSS receiver | MPS566 Model 2 modular GNSS heading receiver

## Marine software applications

Application	TMC for construction	TMC for single beam surveying	Trimble Business Center
Cutter suction dredge	✓		
Trailing suction hopper dredge	✓		
Wire crane dredge	✓		
Backhoe excavator dredge	✓		
Piling	✓		
Rig/Barge positioning	✓		
Anchor handling	✓		
Volume calculations	✓	✓	✓
Navigation/survey		✓	
Single beam data editing		✓	
Chart plotting		✓	✓
Channel design		✓	✓
Single beam survey		✓	
Multibeam survey	✓*		

✓ Yes + Optional \*Real-time Inspection Sonar only

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