

Management Benefits

- Lower port operating costs through preventative berth maintenance
- Accurate decision making from real-time high resolution imagery
- Reduce construction project risk through safety and costs benefit
- Continuity of port operations by lowering unscheduled disruptions
- Enhanced security by easier identification of threats

UIS Rapid Deployment 3D Sonar

The UIS is the only integrated real-time 3D high resolution inspection sonar system for underwater inspection, specifically used for port and harbour construction, dredging, port expansion, maintenance of existing infrastructure, maritime security and channel clearance surveys.

The system can be used to provide preventative maintenance, rapidly assess storm damage, and find sunken debris. Through quick identification of issues, preventative maintenance of berths can be planned to reduce unscheduled disruptions and diver usage will be more focused, lowering dive times, costs and risk.

The UIS mounted on a small vessel, provides ports with the best-in-class capability to detect underwater anomalies that could be suspicious underwater objects or other hazards to shipping. It is designed to deal with the challenges of low visibility and high currents. It can be deployed in less than 20 minutes, providing real-time 3D visualization and 3D mapping.

The UIS is an integrated package combining the Echoscope real-time 3D sonar system, F190+ attitude and positioning system, day/night camera, Data Integration Unit (DIU), laptop, cables and deployment pole. A turnkey solution for a full range of port management tasks.

Applications

- **Operations** -
 - Berth Monitoring
 - Ship Channel Surveys
 - Storm/Hurricane Damage Assessment
 - Shoaling
- **Engineering** -
 - Construction and Expansion
 - Inspection and Maintenance
 - Dredging and Deepening
 - Bulkhead Maintenance
- **Security** -
 - Ship Hull Surveys
 - Critical Infrastructure Surveys
 - Survey Comparison
 - Diver Support
- **Environmental** -
 - Habitat Monitoring

Features

- Designed for the Echoscope real-time 3D sonar products
- Integrated software module for CodaOctopus Underwater Survey Explorer



Coda Octopus

Sound Underwater Intelligence

/CodaOctopus UIS

Technical Specifications

Performance (by Model)

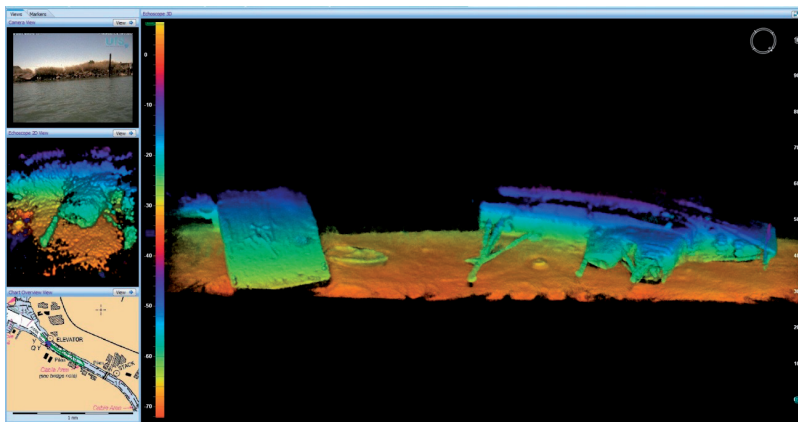
UIS

3D Real-time Sonar	Echoscope
Frequency	375 and 610 kHz
Maximum range	120 m (394 ft) at 375 kHz / 80 m (262 ft) at 610 kHz
Minimum range	1 m (3.3 ft)
Range resolution	3 cm (1.2")
Update rate (ping rate)	Up to 12 Hz
Angular coverage	50° x 50°, 50° x 25°, 25° x 50°, 25° x 25° software switchable

Motion	F190+
Positional Accuracy (CEP)	Up to 0.01 m (with L1/L2 RTK correction)
Roll/Pitch (1σ)	0.025° (RTK)
Heading (1σ)	0.05° (2 m baseline)
Heave (1σ)	5cm or 5% 3.5 cm or 3.5% (iHeave™)
Velocity (1σ)	0.05 km/h

Camera	Day/Night Camera
Control Module	DIU-212
Accessories	Laptop USE Pro software

Two unique technologies in one system



3D Visualization

- View static/moving targets
- 1st person view
- Geo-referenced imaging
- Real-time 3D monitoring
- Use of 3D models

3D Mapping

- Infrastructure mapping
- Dredging pre/post
- Complex target identification
- Make measurements
- Hydrographic survey