

About Qinsy (v9)



Qinsy. - Ping and done.

Qinsy is a survey planning, acquisition, and real-time hydrographic data processing solution, supporting a wide variety of industries. Qinsy is used for precise navigation, hydrographic surveying, construction surveys, inspection surveys and dredging and seismic surveys. Qinsy is the ultimate in client flexibility, with support to single beam, multibeam, laser, sidescan sonar, USBL, magnetometer, and seismic system workflows. With multi-object and multi-sensor support, clients can collect data from these systems simultaneously, while also tracking several objects. Numerous real-time, customizable displays include those for navigation, sensors, numerics, profiles, alerts, and 3D point clouds. Multiple calibration and online qa/qc tools ensure high-quality data acquisition, while real-time data processing and industry-renowned stability ensures maximum survey efficiency. Geodetic support includes an interactive user interface, datum transformations, and geoid model support. Qinsy is also highly focused on autonomy, with support to mission planning, remote display and control, and dynamic "on-the-fly" line generation based on bathymetry collected on the previous line ensures complete coverage with no gaps. The global leader in dredging, applications include those for setup, configuration, monitoring, visualization, safety, and reporting. Additional Qinsy capabilities include tools to support rockdumping, rig moves, and pipelaying and pipe inspection. Also included is Survey Manager, for office-based functions, including project and line planning, plotting, and product generation.

The five versions of Qinsy align to very particular workflows that a client might require:

Qinsy 9 Office

For office-based survey planning, project preparation, data replay, and product generation.

Qinsy 9 Single Beam

For single beam operations, or single beam with integrated sidescan sonar, to include one GNSS, one MRU, and one Gyro.

Qinsy 9 Marine Construction

For dredging operations with no system redundancy, to include one dual frequency single beam, one GNSS, and one Gyro.

Qinsy 9

For hydrographic survey operations using up to 3 Multibeam or Laser systems and 2 GNSS receivers. Includes 1 main object + 1 sub object positioned with layback. Backscatter and water-column recording included.

Qinsy 9 Offshore

For any offshore application. Unlimited sensors and objects, with remote display client. Backscatter and water-column recording included. This one does it all and has no limits.

Sidescan Sonar add-on

Available as add-on with:

- Qinsy 9 Single beam
- Qinsy 9
- Qinsy 9 Offshore

*The sidescan sonar add-on enables sidescan sonar acquisition, processing, and real-time mosaicking display in real-time, customizable viewers. Targets may also be selected in real-time, and later generated into a target report with MS Access database. **Note:** Sidescan data (incl. TruePix) coming from multibeam systems require the Sidescan add-on.*

Remote Display Client add-on

Default functionality with:

- Qinsy 9 Offshore

The Remote Display Client add-on enables the Qinsy display on remote computers within the same network without additional licenses. The remote computer can customize the displays and it allows for remote control of

Available as add-on with:

- Qinsy 9

recording and line changes. Ideal for captains and ROV pilots to maintain a customized display.

Dredging add-on

Default functionality with:

- Qinsy 9 Marine Construction

Available as add-on with:

- Qinsy 9 Offshore

The Dredging add-on supports operations of various dredging vessels, such as cutter dredgers, hopper dredgers and backhoe cranes. Complex dredging systems may be created with various moving components like a suction pipe, ladder, boom and stick. Objects can be connected together, with sub-objects inheriting the attitude of the main object. QPS sounding grids are automatically updated based on material removal and deposits, with the estimated volume based on the dredge tool physical characteristics.

Cable Lay add-on

Available as add-on with:

- Qinsy 9 Offshore

The Cable Lay add-on enables calculation of cable catenary and cable touch down point on the seabed based on cable weight, tension, and horizontal and vertical departure angles, or touch down monitoring. The cable catenary may be visualized in the Profile display, whereas the touch down point calculation is shown in the Navigation display, or as a numerical value in the Generic display.

The modular nature of the software package allows you to select various add-on display and utility modules to best customise each of the standard packages to fit your requirements. Additional modules may be utilised later, via a single e-mail message, if your needs and/or budget change.

Please refer to the document entitled Qinsy System Definition for a detailed description of each module. All sensor I/O drivers current at the time of purchase are included. New drivers added later will be included in product revisions and updates.

Multibeam/Laser

Formerly Multibeam/Laser (with associated beam averaged and beam time series (snippets) backscatter and water-column recording) was formerly an add-on to Qinsy. Now it comes standard with Qinsy 9 and Qinsy 9 Offshore. For advanced patch test, see Qimera. This functionality also enables Laser Scanner data collection.

Qinsy Feature List	Qinsy Single Beam	Qinsy Marine Construction	Qinsy	Qinsy Offshore	Qinsy Office
Recording capability	✓	✓	✓	✓	✗
Replay capability	✓	✓	✓	✓	✓
Online mode	✓	✓	✓	✓	✗
Multiple sensor support	✗	✗	✗	∞	∞
PPS UTC Timing support	✗	✗	✓	✓	✗
Serial and LAN driver support	✓	✓	✓	✓	✓
Position Navigation Systems (GNSS)	1	1	2	∞	∞
Surface Navigation Systems. And, USBL and LBL systems support	✗	✗	✗	∞	∞
Heave/Roll/Pitch sensors	1	∞	1	∞	∞
Heading sensors	1	1	1	∞	∞
Single beam echosounder sensors (multi freq.)	1	1	1	∞	∞
Multibeam echosounder / Laser system	✗	✗	3	∞	∞
Sidescan Sonar support (incl. TruePix)	Add-on	✗	Add-on	Add-on	∞
Sub bottom Profiler	✗	✗	Add-on	Add-on	∞
Sound Velocity Profiler Support (File input & real-time)	File only	File only	✓	✓	✓
Tide Gauge Support (File input & real-time)	✓	✓	✓	✓	✓
AIS Transponder and ARPA Support	✓	✓	✓	✓	✓
ROV and Multiple Object Support	✗	∞	1	∞	∞
ASV and AUV support	✗	✗	✓	✓	✗
Remote Display Client (LAN/WAN broadcast)	✗	✗	Add-on	✓	✗
Dredging Support	✗	✓	✗	Add-on	✓
Kalman position filtering (DVL aiding)	✗	✗	✓	✓	✓
Magnetometer support	✗	✗	1	∞	∞
Acoustic Doppler Current Profiler (ADCP)	✗	✗	1	∞	∞
Cable & pipe tracker support	✗	✗	1	∞	∞
Doppler / DVL support	✗	✗	1	∞	∞
Object linking	✗	✓	✓	✓	✓
Real-time dredging updates in QPS grid	✗	✓	✗	Add-on	✗
SNTP Server	✗	✗	✓	✓	✓
USBL Calibration	✗	✗	✗	✓	✓
User defined drivers	✓	✓	✓	✓	✓
Output systems	✗	✗	2	∞	∞
Advanced Quality Control Functions	✗	✓	✓	✓	✓
Data transfer after stop recording	✓	✓	✓	✓	✓
Total Propagated Error Control Function	✓	✓	✓	✓	✓
Real-time processed points files (*.QPD)	✓	✓	✓	✓	✓
Real-time 3 rd party file creation (ASCII, GSF, FAU, XTF, WSV)	✓	✓	✓	✓	✓
Water column data support (Midwater)	✓	✗	✓	✓	✓
Backscatter time series & per beam intensity	✗	✗	✓	✓	✓
Survey line planning	✓	✓	✓	✓	✓
Volume calculations and reports	✓	✓	✓	✓	✓
Contouring and soundings	✓	✓	✓	✓	✓
Grid statistics and reports	✓	✓	✓	✓	✓
Grid generalization	✓	✓	✓	✓	✓
Charting	✓	✓	✓	✓	✓
Real time cable lay catenary support	✗	✗	✗	Add-on	✗

<i>Real-time Pipe lay touch down point calculation</i>	✗	✗	✗	✓	✗
<i>Real-time I/O and Status Alerts</i>	✓	✓	✓	✓	✗
<i>EPSG database support</i>	✓	✓	✓	✓	✓
<i>User Defined Projections and Units</i>	✓	✓	✓	✓	✓
<i>Geoidal Models and Sounding Datums</i>	✓	✓	✓	✓	✓
<i>Coordinate Conversions</i>	✓	✓	✓	✓	✓
<i>Extended Import/Export (ASCII, DXF, DWG, GeoTIFF, XTF, GSF,.....)</i>	✓	✓	✓	✓	✓
<i>DTM Production in Real Time</i>	✓	✓	✓	✓	✗
<i>Colour Coded and shaded Grids</i>	✓	✓	✓	✓	✓
<i>Pipeline Detection and Eventing</i>	✗	✗	✗	✓	✓
<i>Barge and Tug management, anchor handling</i>	✗	✗	✗	✓	✗
<i>Enhanced multi-Layer Navigation Display</i>	✓	✓	✓	✓	✓
<i>X-Section View and Profile Display</i>	✓	✓	✓	✓	✓
<i>3D Grid Display (incl. 3D Object support)</i>	✗	✓	✓	✓	✓
<i>3D Point Cloud display and water column view</i>	✗	✗	✓	✓	✓
<i>Raster files presentation support (GeoTiff, ECW)</i>	✓	✓	✓	✓	✓
<i>S-57 Support (incl. S-63)</i>	✓	✓	✓	✓	✓
<i>Real-time Single beam & Multibeam blocking</i>	✓	✓	✓	✓	✓