Integrated Survey System (ISS-2000)

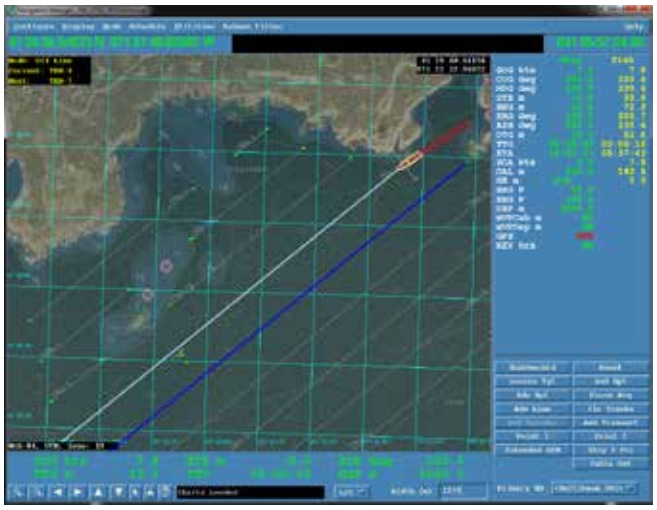
REAL-TIME QUALITY ASSURANCE, COMPACT AND POWERFUL

Leidos designed the ISS-2000 Integrated Survey System for professional hydrographers and surveyors. The compact and powerful ISS-2000 system supports a broad range of high-performance, shallow-water survey operations. These include:

- Hydrographic charting of navigation lanes, inland waters, and coastal areas
- Geologic mapping and scientific investigations
- Location of objects on the seafloor

ISS-2000 has proven International Hydrographic Organization (IHO) accuracy in high-speed, shallow-water surveying with powerful real-time processing and visualization for higher efficiency and data yields.

ISS-2000 includes real-time quality assurance, including message alarms, waterfall displays, real-time coverage plots, and survey report files. It interfaces to a range of multi-beam sonars, Global Navigation Satellite System (GNSS) receivers, single-beam echo sounders, motion sensors, gyros, acoustic positioning systems, autopilots, and more. The data collected is compatible with Leidos' Survey Analysis and area Based Editor (SABER, a data processing and analysis tool) and many other industry post-processing packages. ISS-2000 also features common and fully integrated operation and information management controls along with a full range of hydrographic planning and data collection solutions.



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ISS-2000 SURVEY PLANNING

Solutions

- Route planning
- Survey/transect planning (such as line spacing, speeds)
- Automatic transect and waypoint construction and scheduling
- Complex auto line generation patterns, as well as importing lines from external sources, allow for various types of surveys, including:
  - Basic ladder
  - Search/locate ellipse
  - Area defined polygons
  - Exclusive areas may be applied to any survey
- Computations for time zones, overlap, total survey line miles, and more
- Geodetic transformations (point-to-point, datum conversions, distance measures)

Features

- Geospatial display overlays allow configuring the display to satisfy situational awareness such as IHO ENCs,
- GeoTiff, historical tracks and multi-beam coverage, and targets
- Interactive line spacing and vessel speeds
- Multiple surveys can occupy a single plan

ISS-2000 REAL-TIME

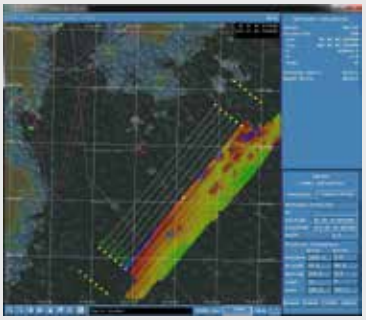
Solutions

- Automatic route monitoring and control
- Integrated sensor control and data quality monitoring
- Data acquisition, storage, and protection
- Visualization and plotting of all data-gathering operations
- Status information (logging, errors, alarms, and measurement quality)
- Diagnostics (sensor calibrations, self-test, and error checks)
- Coverage and corrected bathymetric displays
- Static and dynamically corrected displays (tides, sound velocity profiles, and squat)

Features

- On-the-fly plan and sensor setup changes
- Dynamically corrected sonar measurements and navigation
- Information recording and management of all hydrographic information in Generic Sensor Format (GSF)
- Efficient monitoring and control of system operational performance
- Operator alerts for exceeded data limits, system status, and alarms
- Real-time total propagated uncertainty (TPU)
- Real-time ellipsoidal referenced survey (ERS)

The ISS-2000 runs on the Windows 10 operating system.



ADDITIONAL FEATURES

- ISS-2000 offers modular components in a choice of price-performance packages
- Integrated sensor suites with data acquisition systems and software
- Deepwater, high-resolution survey systems
- Transportable and portable models
- Transportable, portable, and adaptable to AUV and autonomous operations

FOR MORE INFORMATION

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