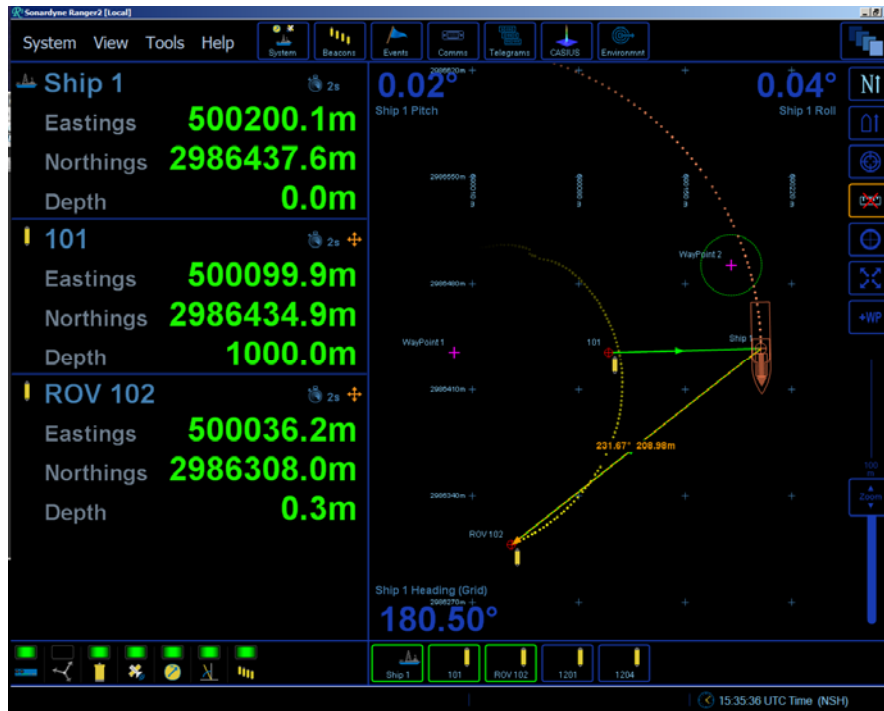


Datasheet

Ranger 2 - USBL Software



Description

Ranger 2 USBL is a precision, survey-grade Ultra-Short Baseline (USBL) acoustic positioning system designed for Dynamic Positioning (DP) reference and for ROV/towfish tracking operations, primarily for construction and survey use. Ranger2 builds on the simplicity and reliability of Ranger 1, but adds support for new Sonardyne 6G® instruments and Wideband 2 acoustic signals.

Ranger 2 can track up to ten targets simultaneously to ranges of greater than 6,000 metres. The system supports all industry standard telegrams and is compatible with a wide range of transponders including Sonardyne's Compatt 6, Compatt 5, Wideband Sub-Mini beacons and responders as well as Kongsberg HPR.

Ranger 2 software has an extensive set of tools to allow the user to optimise the system performance, including real-time acoustic quality indicators, as well as traditional signal and noise analysis and travel time displays. Sonardyne's CASIUS calibration tool is also included to correctly calibrate gyro and VRU offsets, and so improve positioning accuracy.

With the addition of a co-located Lodestar AHRS to a 6G® USBL transceiver, perfect time-synchronisation is achieved, giving the optimum solution for deep water DP and construction survey.

As Ranger 2 systems share the same topside hardware with Sonardyne's most advanced Ranger2 Pro USBL and Marksman LUSBL systems, users

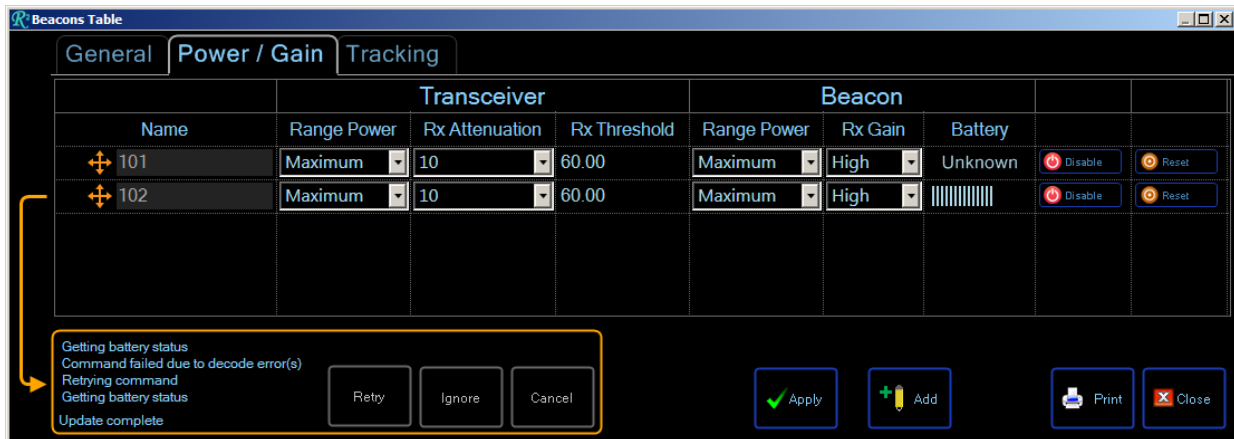
can easily and cost effectively upgrade their capabilities as their experience and requirements grow.

Key Features

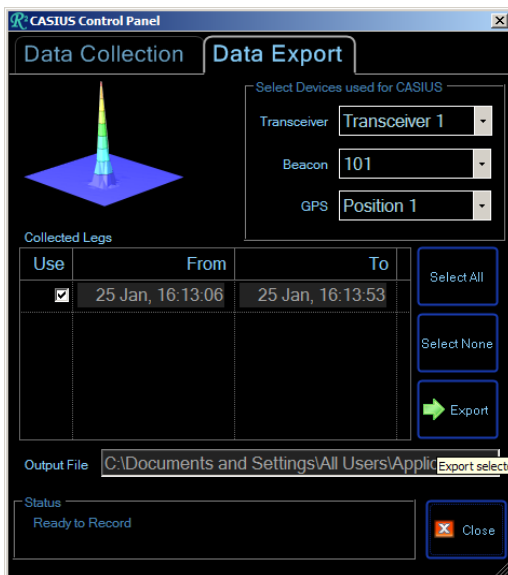
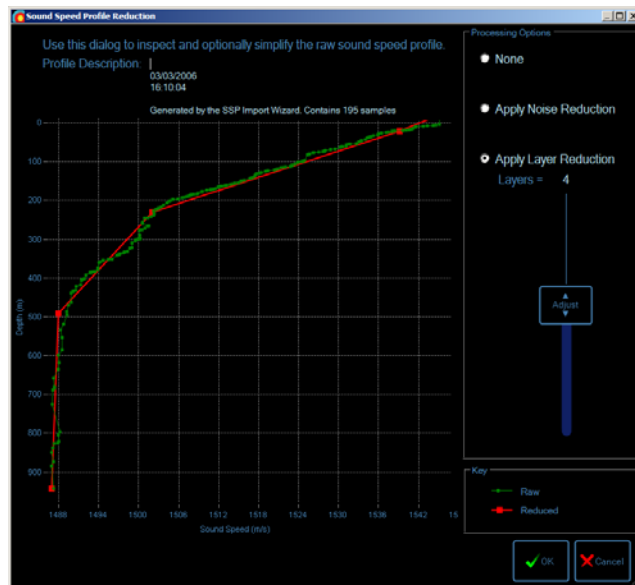
- Fully automated setup and tracking with Sonardyne 6G® instruments
- Powerful Kalman tracking filter as well as least squares option
- Easy to use, modern user interface
- Remote user interfaces for ROV or survey use
- Integrated CASIUS calibration tool
- DP and survey output telegrams
- Waypoints and watch-circles
- UTC time-synchronised multi-system operation
- Optimised USBL option with addition of Lodestar AHRS

Specifications

Ranger – USBL Software



Transceiver			Beacon			
Name	Range Power	Rx Attenuation	Rx Threshold	Range Power	Rx Gain	Battery
101	Maximum	10	60.00	Maximum	High	Unknown
102	Maximum	10	60.00	Maximum	High	

Feature

Ranger 2 – USBL Software

Computer hardware	Sonardyne Navigation Processor (recommended)
Operating Systems	Windows XP SP2, Windows Embedded Standard, Windows 7
Sensor interfacing and time-sync	Sonardyne Navigation Sensor Hub
Gyro data formats	NMEA HDT, SG Brown (ASCII, BIN), Robertson SKR82
VRU data formats	SON2, TSS1, TSS2, EM1000, EM3000, PRDID
GPS data formats	GPGGA, GPGLL
DP/survey outputs	All industry-standard DP telegrams
Transceivers	Sonardyne HPT (6G), GDT (5G), ROVNav6
Transponders/Responders	Compatt6, Compatt5, DPT, WSM, WMT, nano, HPR