iLinks News

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InteLAS™ HD

Mobile LiDAR System

- Mobile LiDAR system
- Works at Highway Speeds
- Motion Reference Unit
- Fiber Optic Gyro Compass
- GNSS RTK Positioning
- Dual GNSS Heading
- 700,000 Points Per Second
- 100m Range Capability
- ± 1cm Accuracy at 100m
- 42° x 360° Field Of View
- 0.01° Angular resolution
- Factory Calibrated
- Water & Dust Resistant
- Rugged Laptop PC
- HYPACK or QINSy
- Training & Support

MERLIN

Stand Alone LiDAR Sensor

- Standalone LiDAR sensor
- Class 1 eye safe laser
- 36,000 Points Per Second
- 250m Range Capability
- ± 1cm Accuracy
- 250 meter range
- 360° Field Of View
- 0.01° Angular resolution
- Water & Dust Resistant
- Rugged Laptop PC
- HYPACK or QINSy
- Training & Support

Producing a 3D model in "Real-Time" using three independent LiDAR and SONAR systems

The great LiDAR debate, which has been going on for almost a decade, centers around three core arguments; Laser range, accuracy and point cloud density. In our humble opinion, it's all just Horses-for Courses" chose the system that best suits your operational requirements.

iLinks have been designing and building mobile LiDAR systems since 2008 and have completed hundreds of land and marine LiDAR projects, 90% of the data delivered to the customer was within the 35 – 75 meter range but there were occasions when 150 meters was not enough.

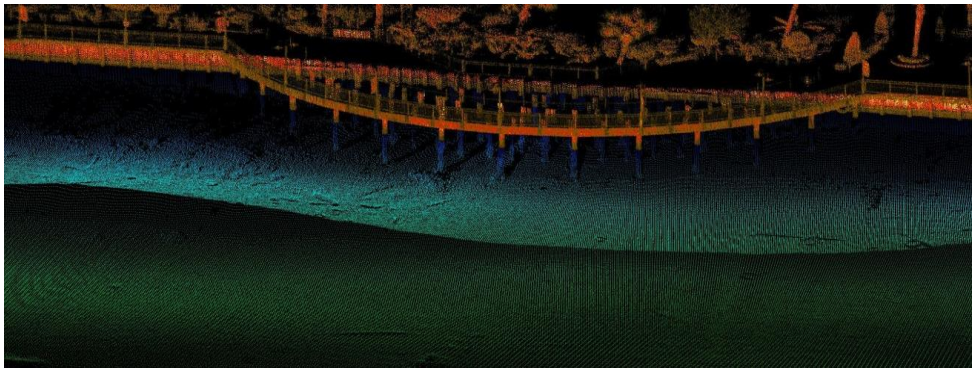
There is no shortage of data sets out there from various LiDAR systems but very few that were collected concurrently in real-time using different LiDAR sensors on the same platform.

iLinks fitted their Rapid Deployment Survey Vessel (RDSV-2) with their own InteLAS™ mobile LiDAR system and the new Renishaw "MERLIN" stand-alone LiDAR sensor. The RDSV-2 is also fitted with the latest R2Sonics 2024 Hi-Res multibeam sonar system.

The InteLAS™ HD was used to provide positioning, heading and motion reference for all three systems. Data from both LiDAR systems, and the multi-beam system were collected simultaneously producing a real-time 3D point cloud of the above and below the water surface scene.

The InteLAS™ HD has been designed for high density medium range and the MERLIN for low density long range so the resultant combined 3D point cloud contained the best of both worlds. During the survey the R2sonic multibeam head was tilted towards the surface to enable the collection of sonar data all the way to the water surface.

Although all of the onboard systems performed well and exceeded their published specifications, and the data set was exceptional, it hasn't changed our "Horses for Courses" opinion. Think about your flat screen TV at home; If you sit close up to the TV you need the high 1080P pixel density or the picture becomes blurry, but if you sit across the room, the 720P looks as good as the 1080P, it all depends on what you want from the system, which is why iLinks designed the InteLAS™ range of mobile mapping system with optional LiDAR sensors. The Kemah Boardwalk data set from the above trials will be made available for download on request – contact us at http://www.ilinks.us/contact.html



Section of the Kemah Boardwalk
InteLAS™ HD and MERLIN data