

# Rapid Surveyor

Infoterra Ltd (UK) has launched Rapid Surveyor, a new mobile laser mapping system. Infoterra has invested in the next-generation of laser technology, specifically designed for mobile use, to enable the capture of precise information of the built/natural environment at supreme resolution and coverage. Rapid Surveyor captures an unprecedented level of high quality data with a speed of capture far faster than traditional terrestrial-based surveys. Due to each survey taking less time, but delivering an extremely accurate and dense dataset, the Rapid Surveyor solution is highly cost-effective for a wide range of applications. For example, Rapid Surveyor opens up new possibilities for utility companies, local & central government, as well as planning and infrastructure management.

Rapid Surveyor makes up to 200,000 measurements per second, allowing highly detailed 3D information to be captured from a moving vehicle. Its unique multi-directional design provides a complete 360° field-of-view to maximise data coverage within a 100m radius. This capacity enables new levels of detail and precision to produce realistic street-level visualisations. In addition, up to 600 colour images are simultaneously collected per minute by two cameras. As a result, all objects are captured in their precise locations - including those not shown on national mapping such as street furniture - effectively mapping the truly immersive 3D built environment. Owing to the position of the sensors on this new mobile system - at an angle to the vehicle's motion and inclined off vertical - the lasers cross each other's field-of-view. Therefore, when driving forward an object is imaged twice by the sensors but not at the same time, thereby minimising shadows and occlusions. Also the front of objects, such as bridges and road signs, are captured.

Rapid Surveyor is a fully optimised mobile laser mapping solution mounted on a 4WD vehicle and features two of Optech's new Lynx Mobile Mapper lidar sensors, each operating at 100,000 measurements per second, developed specifically for mobile data capture applications. In addition it offers two cameras, for capturing photography simultaneously. Rapid Surveyor is capable of capturing data at a range of speeds from walking speed to 50 mph depending on the level of accuracy required.

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