

Lynx Mobile Mapper: The New Survey Technology

Federica ZAMPA, Italy, Daina MORGAN and Dario CONFORTI, Canada,

Key words: lidar, mobile mapping, surveying, workflow

SUMMARY

The Lynx Mobile Mapper™ is the new lidar solution developed for surveying large areas that are impractical to scan with static lidar sensors but that require an accuracy and resolution that exceed those of airborne technologies. The Lynx Mobile Mapper scans at speeds of up to 100 km/hr, obtaining a system accuracy of better than 5 cm and a resolution of up to 7 mm. Its high-resolution and low-noise data streamlines the delivery of CAD drawings of overpass structures, surface curvature and deformation analysis, safety barrier analysis, and clearance calculations, among others.

This paper presents two real world applications: the survey of a Greek highway (Korinthos – Tripoli, March 2008) and, for historical preservation, the survey of several major roads in Milan's city center. The paper traces the entire survey workflow, from project planning in the office to the actual field survey to the final data processing with commercial software.

The paper analyzes the advantages and disadvantages of this lidar technology in different environments, its accuracy and data quality, safety and field work, office post-processing workflows, and the generation of final products and related issues, as well as a comparison against the same surveys performed by a static laser scanner.

CONTACTS

Daina Morgan

1-905-660-0808

1-905-660-0829

exhibition@optech.ca

Canada Zampa, Federica (Italy) – Email: federica.zampa@sineco.co.it

2: Conforti, Dario (Canada) – Email: darioc@optech.ca

3: Morgan, Daina (Canada) – Email: exhibition@optech.ca