

5.2.1 Mobile LiDAR: Surveys at the Speed of Business

Presenter

Thomas W. Tiner
GIT Department Manager
Michael Baker Jr., Inc
ttiner@mbakercorp.com

Co-Presenter

The application of LiDAR (Light Detection and Ranging) technology within the Geospatial industry over the past decade has revolved around aerial applications. Today, technological advancements have facilitated accurate LiDAR capture from mobile terrestrial platforms. Recent evolutions in sensor design have yielded systems capable of producing survey/engineering grade accuracy on-the-fly, while blanketing areas within 200+ meters of the vehicle with up to 1.6 million laser returns per second. By coupling the advantages of both proximity-to-target and ground-based viewing perspectives, mobile LiDAR delivers far greater accuracy and point-density than airborne platforms, and provides the framework for new applications and uses. This presentation will provide an overview of Mobile LiDAR technology and demonstrate its practical application for: roadway design, asset inventory, bridge / road inspections, corridor mapping and 3D modeling/animation. Additionally, the presentation will review current methodology for rapid feature extraction and point-cloud rasterization, as well as the examination of benefits over traditional surveying and data collection methods.