

Comprehensive Geospatial Workflows Demonstrated at Intergeo



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As one of the biggest exhibitors at this year's Intergeo, the world's premium geomatics event, Trimble is demonstrating its comprehensive portfolio of geospatial solutions. Trimble's portfolio of aerial imaging, mass and point data capture, GIS mapping and terrestrial imaging tools enables surveying, engineering and mapping professionals to streamline operations and make efficient decisions. The company is demonstrating ways to save time, reduce costs and streamline workflows by deploying intuitive and accurate geospatial hardware and software solutions. Highlights include the new Trimble ZX5 multirotor and UX5 HP fixed-wing UAS), the Trimble MX7 mobile imaging system, new versions of Trimble Business Center, eCognition, Inpho UASMaster, RealWorks and Trident software, and application examples demonstrating the integration of multi-sensor

Trimble's geospatial solutions are specifically designed to create a streamlined and efficient process across the data value chain, from the boots on the ground to the decision-makers in the back office, said Ron Bisio, general manager of survey and geospatial at Trimble. The company's ultimate vision is to provide its customers with the most useful tools across Trimble's core industries, which includes the continued development of the company's powerful software solutions to pair with the industry leading hardware.

UAS Imaging Solutions

A full portfolio of UAS hardware and imaging software – the Trimble ZX5, UX5 HP, Trimble Business Center (TBC) 3.60 and UASMaster 7.0 – provides highly accurate aerial data synthesis to support a wide range of UAS applications. The fixed-wing Trimble UX5 HP is a fully automated, high-precision system capable of capturing aerial photography with resolutions down to 1cm with its 36 megapixel full-frame high-resolution camera. To support a broad range of UAS applications, it can be customised with different camera and lens. Trimble's ZX5 Multirotor captures and processes georeferenced photo and video data for mapping, volumetric and inspection applications.

The ZX5 complements the Trimble UX5 fixed-wing system with the ability to reach smaller, remote environments faster, while providing accurate mapping data. ZX5 Multirotor users can generate image orientation with a single click with UASMaster 7.0, which can calibrate highly accurate results in situations with limited positional information or un-calibrated cameras. Trimble Business Center 3.60 integrates data from multiple instrument types, maximising project efficiency by enabling field-to-finish capabilities including computer aided drafting (CAD), volumetrics and reporting.

Laser Scanning Solutions

Trimble continues to blend powerful 3D laser scanning and imaging hardware with deliverable-based software to drive new efficiencies for survey applications and construction planning and design. The Trimble TX8 3D laser scanner now offers greater accuracy (down to 1 mm) and streamlined onboard operation when measuring to longer ranges, decreasing the field time required for capturing reliable high-accuracy data.

The new Trimble RealWorks 10.0 software includes an improved user interface with a simplified menu structure and guided workflow that allows users to easily generate deliverables. A new automated, one-button push targetless registration simplifies the process to combine multiple scans while new classification tools introduce greater flexibility and automation for customers processing and delivering point cloud based results. These upgrades are designed to enable Trimble customers to perform more intuitive, integrated workflows that deliver high-quality results.

Mobile Data Capture & Mapping Solutions

The new Trimble MX7 showcases the latest advances in mobile mapping and imaging technology. The MX7 mounts easily on a variety of vehicles of all sizes and includes an embedded computer, which is operated by a touchscreen tablet using Wi-Fi technology to connect to the instrument. Representing a new generation of affordable mobile mapping systems, the Trimble MX7 captures 360 degree fully-direct georeferenced imagery using an industry-leading spherical camera and GNSS/INS technology. MX7 imagery is calibrated for high-accuracy terrestrial photogrammetry, allowing users to position, measure, annotate and extract information that enables faster and smarter decision making. Multiple MX7 pilot customers are using the system for a variety of applications, including construction, survey, asset

management, rail, civil transport, mining, oil and gas, site documentation, workforce training, city planning and 3D visualisation.

The new Trimble Trident 7.2 software provides a comprehensive set of capabilities to extract information from mobile imagery and point cloud data for both engineering and mapping applications. An upgraded snipping and image annotation tool enables Trimble MX users to easily cut specific portions of 360-degree images for rich GIS attribution. Improved sign recognition tools allow manual classification using rich data libraries. New automated batch processing eliminates time consuming manual interaction and monitoring, freeing users to be productive on other project-related tasks. The combination of Trimble MX hardware and Trident software allows geospatial professionals to quickly collect, process and extract valuable information for effective decision making.

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