Beyond the Highway: How All Asset Managers Can Reap the Benefits of Mobile Mapping

Mobile Mapping enables you to rapidly collect enormous amounts of highly accurate, geo-referenced spatial data, making it appealing to those in asset management.

Given his experience in GIS field work, we spoke with Chris Breedlove from our Mobile Mapping Division about his thoughts on the technology, why it's not just for highway work anymore and how Duncan-Parnell's new mobile mapping rental program makes it easy for everyday asset managers to reap its benefits.

So, Chris, what is mobile mapping?

Mobile mapping refers to any geospatial data collection from a moving vehicle or platform. This includes mounting a panoramic camera or LiDAR scanner – or both – onto an automobile operating at highway speeds, a train or even a boat.

What is groundbreaking about Trimble's mobile mapping equipment?

Trimble's MX series is vehicle-mounted hardware and includes the MX7, MX50 and MX9. Some highlights of this tech include:

- The best IMU in the industry – Applanix's AP60 is standard on the MX9 and an option on the MX50
- System weight and components that yield simple, quick and easy installation, especially compared to the other high-end systems on the market
- All Trimble MX mobile mapping units share a common software workflow

What are some ways you've seen mobile mapping used?

Perhaps the most impressive aspect is just how versatile and far-reaching the possible use cases are for this technology. One project that stands out was driving the MX9 to capture an entire city block in under 1 hour (including set up time); static scanning for this project took 10 days in the field! I then used a GeoSLAM Zeb Horizon handheld scanner to fill in any missing data, and we still didn't come anywhere close to the time spent in the field before.

Who could use mobile mapping?

Truly anyone who needs to document large-scale sites quickly and authoritatively would benefit from Trimble's MX series gear. Traditionally, mobile scanning is leveraged on highway and other major road projects to generate engineering-quality road surfaces, but this tech can be used in so many other ways, such as for GIS asset collection, both large and small scale.

Be honest, what's the learning curve like?

If you're coming from a GIS perspective like I was, there are many new concepts to learn, but it is certainly doable. Surveyors and engineers, especially those used to terrestrial scanning and processing point clouds already, just have to get comfortable with trajectory processing. Anyone who is currently doing terrestrial scanning with Trimble scanners and processing the data in Trimble Business Center (TBC) should have a rather short learning curve.

Setup and operation of the systems for data capture is rather simple. Certainly, sound project planning is key, as with any project, particularly as far as setting enough ground control points to satisfy your project's accuracy requirements.

What do you like about Duncan-Parnell's new mobile mapping rental program?

Our rental program reduces the financial barrier of entry. It allows firms who might not be taking on massive DOT projects to still benefit from the tech on more granular projects. It also allows organizations that only need to capture data in short bursts, say for quarterly or annual reinspection, to spread out their hardware costs. We offer two rental pathways for Trimble MX series gear, giving organizations the flexibility to choose the program that best fits their needs, experience and timeline. We'll ensure you have everything you need to be successful, from hardware, software and accessories, to training, so your team can get the most out of your rental.

Chris joined Duncan-Parnell in May of 2022 after a career in city planning and asset management. Throughout his career, Chris has been a heavy GIS user and has leveraged ESRI programs like ArcGIS Pro and Field Maps, along with Trimble hardware and software. Chris' time spent in the field gives him special insight into how mobile mapping can be used for asset management.

Visit duncan-parnell.com/mobile-mapping-solutions for details on the mobile mapping rental program we offer and to learn more about Trimble's MX series!

Hear From Our Experts at Trimble's Biggest Users Conference

This November, Trimble will host its biggest users conference, Dimensions+, in Las Vegas. This three-day conference brings together a global community of diverse industry pros for hands-on learning, networking, insightful courses and plenty of fun. Attendees will enjoy interactive demos, hands-on workshops, in-depth training, special events, big fun and unlimited inspiration.

Not only will much of our Geospatial team be attending this year's conference, but several of our experts will be presenting as well. These insightful presentations will contain actionable ideas for boosting your business and timely topics that are impacting today's industry leaders.

Trimble.

(All times are in PST)

Calvin Rikard
Forensic Solutions Specialist

Panel Discussion: Life After Law Enforcement
November 7, 10:30-11:30 AM
Hear the story of a career traffic crash reconstructionist turned solutions provider.

UAV Point Cloud Accuracy in Forensic Mapping
November 9, 9-10 AM
This presentation will cover the testing of sUAV forensic mapping methodologies that are commonly completed by many law enforcement agencies.

Daphne Brown
Geospatial Training & Support Specialist

Streamline GIS Utility Workflows: Exercise Valves, Not Your Field Crew
November 8, 8:30-9:30 AM
This session will detail how innovations in technology can easily organize, manage and store asset information in a digital GIS database.
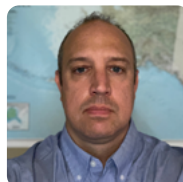
Charlotte Davis
Geospatial Training & Support Specialist

Shift Happens: Why GPS Software Settings Configuration Matters for Data Collection Using Real Time Corrections Workflows in the Realm and Mapping and GIS
November 8, 10-11 AM
In this session attendees will hear the findings from a study designed to test various GPS settings via control point mapping field tests.

Neil Robicheau
Geospatial Technical Sales & Support

Managing Your Survey Data with Trimble Business Center
November 8, 2:30-3:30 PM
This session will touch on how Trimble Business Center software can be used to effectively manage survey data.

Joe Priestner, PLS, PE
Emerging Technology Manager

Automated Geostructural Monitoring: How to Anticipate and Overcome Common Challenges Encountered During a Long-Term Monitoring Project
November 9, 9-10 AM
This presentation will begin with a short overview of the Trimble Automated Monitoring product line and contain a brief description of how the collected observations flow from the field into the office and how the observations are processed and presented in Trimble 4D Control.

Get Support When You Need it With Our Streamlined Customer Support Process

Whether you're in the field or at the office, we know that getting the support you need, when you need it, is crucial to your operation. To make getting the support you need even easier, we've streamlined the process.

Geospatial customers can now submit support requests using the form on duncan-parnell.com/success-center or, by emailing or calling:

support@duncan-parnell.com or 833-738-2295

By directing your support requests to one of these channels, we're able to respond to your requests and provide the support you need even faster.

Trimble Releases New 3D Laser Scanning System – the X12

Introducing the latest scanning innovation from Trimble, the X12 3D Laser Scanning System. This 3D laser scanner offers superior speed, accuracy, range and incredible image clarity for all scanning applications. Increase your productivity and collect richer, more accurate data with the X12's ability to scan up to 2.2 million points per second. The X12 offers comprehensive workflows to validate scan projects in the field and is ideal for:

- Topographic & General Surveys
- Creating Digital Twins
- As-Built Documentation
- Forensics, and more!

To see the X12 3D laser scanner in action and learn if it's right for you, contact your local rep.

■ News & Updates

Spectra Geospatial Origin v2022.01 Now Available

Includes support for the Spectra Geospatial SP30 GNSS handheld as well as a number of roads and performance improvements

Trimble Releases Inpho Version 13

The new software offers streamlined capabilities for working with Phase One sensors

New Firmware Version for Spectra Geospatial SP85 V5.20

Contains bug fixes, support for more GNSS signals and other improvements

Trimble Access Monitoring Version 1.1.5 Available

Users can now incorporate scanning, further modify reporting, have flexibility in height measurement methods and shorten their observation measurement time

Trimble Access Version 2022.01 Available

Includes support for the Trimble TDC650 handheld GNSS receiver as well as a number of roads and performance improvements

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WAVE *LENGTHS*

OVER 20 YEARS *OF GEOSPATIAL NEWS* / Issue 3 - 2022
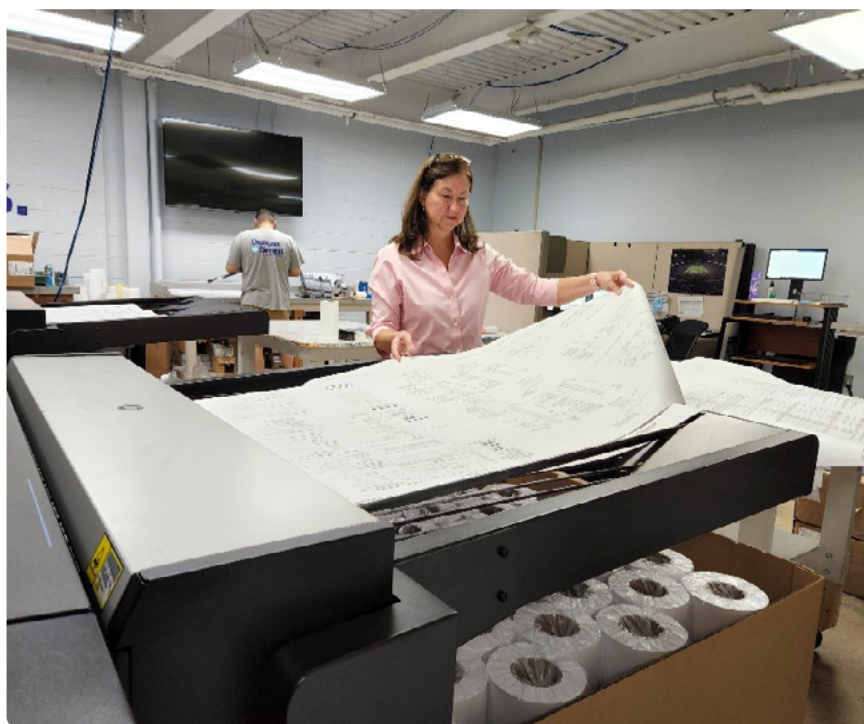
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Your Trimble Survey & Mapping Connection
In the Carolinas, DC, DE, FL, GA, MD ,TN, VA & WV
duncan-parnell.com

Simplify Your Workflows With Our Flexible Printing Solutions

Did you know that, in addition to our Geospatial offerings, we also sell, lease and service large-format printers/plotters and color office copiers to meet your printing needs? For added flexibility, we also offer our On-Site Print Solutions program (OSPS) that allows you to benefit from the latest engineering printing solutions without any incremental financial commitment. It makes in-house printing hassle-free, affordable and solves for technology obsolescence. Our wide format printing solutions include a variety of options such as printers from HP, Oce and Canon.

Upcoming Events & Conferences 2022

September 15
Intro to Trimble Mobile Mapping
Webinar

September 15-22
WaterJAM 2022
Virginia Beach, VA

October 4
Emerging Technology Field Day
Carthage, NC

October 9-14
FDIAI 62nd Annual Educational Training Conference
Orlando, FL

To register, or for more info on any of these events, visit duncan-parnell.com/events