



WaveLengths

Geospatial News

20 Years of News • 1999–2019



Enovate Looks to (and Through) the SX10 to Keep its Team Productive

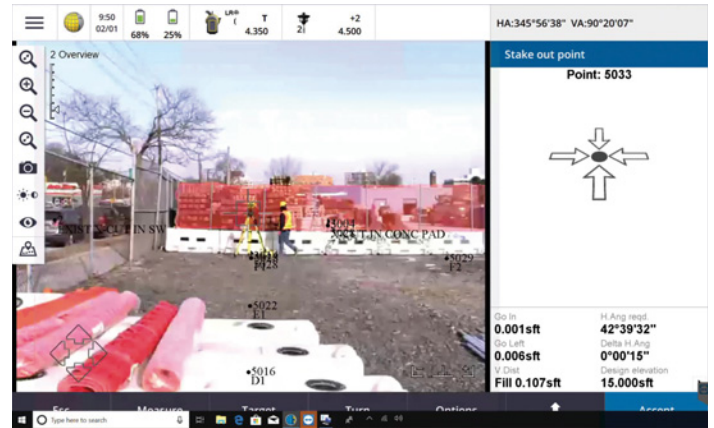
Keeping your survey crews running smoothly is a challenge for every geomatics and engineering firm. Joe Priestner, Vice President of Geomatics & Technology at Enovate Engineering LLC, knows that all too well. Having worked in the survey and civil engineering industries for the past 30 years has taught him a thing or two about managing personnel, equipment, and data, both in the field and from the office.

Enovate Engineering is a WBE engineering firm with offices in Charlotte, NC and Cranford, NJ that specializes in construction management services and has a research and technology division to address solutions that don't currently exist for problems the team has seen in the field and experienced firsthand. Enovate also provides on-site field services such as surveying and monitoring for both traditional and technologically advanced elements of projects.

From the beginning of his career, Joe has been a proponent of using the best technology for the job, particularly in surveying. In 2018, Enovate purchased a Trimble SX10 from Duncan-Parnell, Inc. as part of an effort to outfit a new survey vehicle. "We wanted a Trimble instrument; my past experience has shown Trimble equipment to be reliable – with less downtime. When we saw the SX10 come out, for just a few extra dollars, we could be carrying both a robotic total station and a laser scanner into the field with us and have it on every job. That was very attractive."

As part of his survey management, Joe has always strived to have remote access to data collectors in the field. In years past, crews would come into the office prior to going out on a job and would bring the data back to the office at the end of the day for download. With technology what it is today, crews are on the road more with less office time, so Enovate downloads and uploads files remotely to maximize their efficiency.

I [remoted into the] SX10 and realized that I could see through the instrument. I could basically drive survey and act as the crew chief remotely. I could see what they were looking at, I could see what points they were measuring..."



Remoting into the SX10 from the Enovate office.

Recently, Joe was working from Enovate's Charlotte, NC office trying to support a crew working in the field at a jobsite in another city. The crew was staking out a building, and they were having issues. "I got on the SX10 and realized that I could see through the instrument. I could basically drive survey and act as the crew chief remotely. I could see what they were looking at, I could see what points they were measuring, that type of thing. I quickly diagnosed what was going on, so it was a neat realization that – wait a minute, all I need is somebody to set up the instrument in the field, and I can run it from anywhere."

With the SX10, Joe could see that his crew chief was actually walking to the wrong place on the jobsite. He was able to quickly correct the layout issue and get the crew running again.

Previously, an issue like this would have potentially not shown up until the crew got back into the office and data was downloaded and reviewed – a lot of time and effort spent on something as simple as a misunderstood point location.



Joe with the SX10 onsite.

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News & Updates

Trimble Catalyst Updates

Version 2.0 of the Trimble Mobile Manager app for Trimble Catalyst is now available for free download on the Play Store. It features an updated user interface, full support for Android 9, and many general improvements.

Download at <http://bit.ly/2VsNpXG>

Trimble C5 Total Station Power Settings Guide

Learn which settings matter when you're trying to maximize battery life, and how to change them.

<http://bit.ly/2VrdUuw>

InSphere Web Application Update for TerraFlex Users

Trimble recently updated the InSphere web application to improve its performance when viewing TerraFlex map features. To ensure you are using the new version, force your browser to refresh the page by navigating to the InSphere web application (<http://app.trimbleinsphere.com>) and pressing Ctrl + F5. This will work on most common browsers like Google Chrome, Firefox, or IE.

Trimble Access Tutorial: Stake Out with IFC Models

This video shows you how to import and stake to IFC models in Trimble Access 2018. IFC stands for Industry Foundation Class and is a widely used BIM format.

<http://bit.ly/2I1bbH8>

Latest MX9 and MX7 Antenna Parameters Available

New antenna information can be imported into POSpac 8.x to improve the MX9 and MX7 3.0 positioning.

Details at <http://bit.ly/2GjqpVM>

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For Joe, the ability to capture a laser scan while you're out measuring a few points and be able to combine the data relatively quickly is huge. There's no registration process. "As you're surveying, the instrument knows where it is. By eliminating the process of registration and going through a separate process of locating scan targets, it's more efficient to capture scan data. It's more cost effective, easier to support, easier to work with crews in the field – especially today with everything being remote. It makes a big difference in keeping the crews running efficiently."

The combined scanning and conventional data capture capabilities of the SX10 has changed survey processes at Enovate. They are collecting and using far more scan data than if they had to carry a separate scanner, because the scanner itself can be expensive, adding another \$60,000-\$100,000 instrument that the crew would have to carry around and making it not very practical to have in every survey truck. They are making the SX10 their standard crew instrument, so they are using the laser scan data more. "It's almost like we capture anything that we might not have thought we needed when we were in the field. So the combination of imagery, scan data, and the individual points – we have a richer dataset to work with. It's changed our workflows in that we now do a lot of combined scan data and conventional data, so that we don't have to return to the field to pick up stuff that was decided at a later time that we needed to show on our drawings."

Recently Joe was working on a landmark building in New York City with the building moving in high winds – they were on the 102nd floor – and the instrument kept giving them an error, even with the compensators turned off. He called Mike Withers at Duncan-Parnell and Mike was able to give him the information he needed to correct the problem. They were back up and running in a matter of minutes.



Using the SX10 in tight, enclosed spaces.

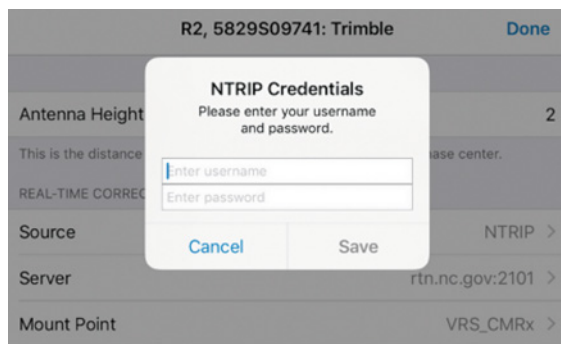
Joe has had a long relationship with Duncan-Parnell having worked with them since the 1980's. "It's always been service that Duncan-Parnell is tops at. You can always call them, and they are very responsive. They know their equipment. It's all about service. When we're out in the field working and have an issue, we need immediate support to keep us productive, and Duncan-Parnell has always been there."

For Enovate, technology is a critical element in their workflows. Having trusted partners like Trimble and Duncan-Parnell to support that workflow plays a vital role in their efficiency.

* Certain products not available in all locations due to manufacturer's restrictions.

Tech Tip: Configuring NEW Collector (Aurora) for ArcGIS with Trimble Mapping Receiver

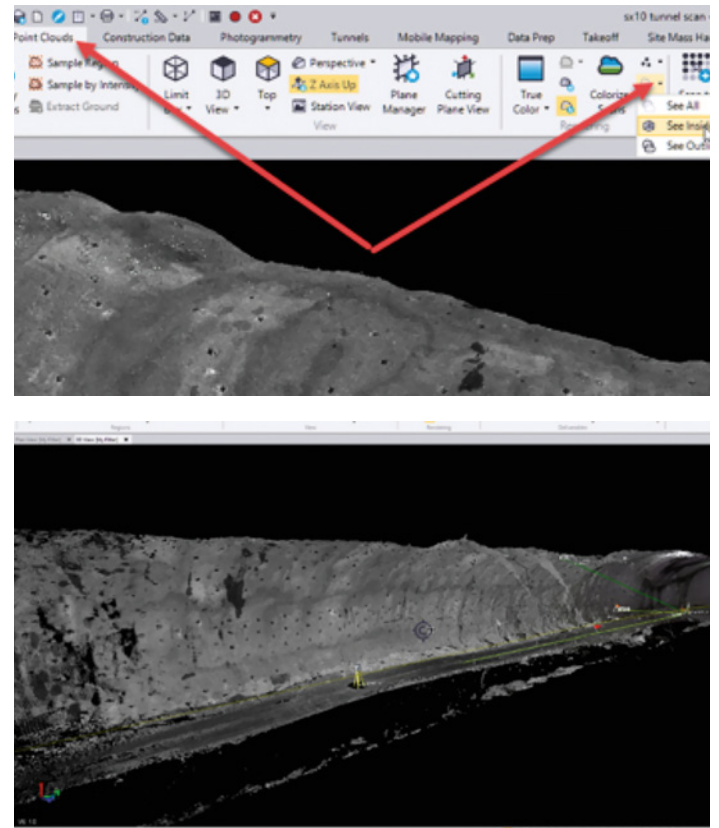
1. Press power button on receiver to start pairing mode.
2. Enable Bluetooth on iOS device. Confirm that iOS pairs with receiver. (R2 receivers will be listed as "R2 <serial> Trimble," while R1 receivers will be shown as "GNSS: <serial no>" (ie GNSS: 68033).
3. Open up NEW Collector.
 - a. Click on your avatar to open up settings.
 - b. Click on Provider (under Location).
 - c. Click Add and choose the Trimble Bluetooth Receiver that you have paired.
 - i. In the next window, enter the Antenna Height.
 - ii. Enter the real-time correction source (SBAS if not using an internet or other satellite-based correction). Here we are using NTRIP for the NCVRS network.
 - iii. Click Server and enter the url and port. (NC is always rtn.nc.gov and port 2101). Click Connect.
 - iv. Choose the mountpoint. When you click Done, you will be prompted for username and password. This comes from the correction source provider. Click Save.



- d. Click Done on the Provider details.
 - e. Click Profile to return back to settings.
- * Note: If you plan to use other real-time correction sources such as NC VRS, be sure to set the Location Profile correctly. See "Setting up Collector for ArcGIS for high-accuracy data collection."
4. Open the Collector Map. The GNSS accuracy will be shown across the top.
 5. Tap the bar if you wish to see more GNSS Info like number of satellites, PDOP, etc.

Tip: See Inside SX10 Point Clouds

If you use your SX10 scanner to scan indoors or in tunnels, it can be hard to see inside the point cloud. The new "See Inside" tool in TBC makes this easy. In the Point Clouds tab, select "See Inside." This removes all points between you and the SX10 in the view and allows you to see inside the building or tunnel.



Meet Aaron Bailey, Repair Technician, Charlotte

As a Repair Technician, Aaron calibrates and repairs Trimble and Spectra equipment sold in house, and troubleshoots customer questions and issues with their equipment. Aaron is a certified Spectra technician for rotary and stationary lasers. He joined Duncan-Parnell in September 2016, bringing six years' experience in the U.S. Army National Guard as a maintenance technician for rotary aircraft. He also studied Electronics Engineering as a university student. His military experience brings leadership, communication, and a straightforward methodology to assist customers in a timely manner. Aaron can be reached at 704-526-1857, or at aaron.bailey@duncan-parnell.com.



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YOUR TRIMBLE SURVEY & MAPPING CONNECTION
IN THE CAROLINAS, DC, DE, FL, GA, MD, TN*, VA & WV

**Trimble Precision.
Handheld Convenience.
Android Simplicity.**

New!



Looking for a combination of a high accuracy GNSS receiver and Android platform, in a handheld form factor? The new Trimble TDC150 may be for you!

Key Features:

- Integrated high-accuracy GNSS receiver
- Scalable positioning accuracy from meter to centimeters
- Android™ 6.0 operating system
- 5.3-inch sunlight readable multi-touch capacitive screen with a removable, all day battery
- Google Mobile™ services certified to run Google core applications and services
- Compatible with Trimble or third-party software applications
- Ultra-rugged design with MIL-STD-810 certification and rated IP67
- Fast Qualcomm® processor with 2 GB RAM and 16 GB internal storage