



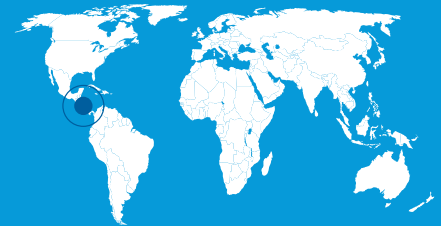
# Bringing 3D Scanning to Guatemala: Rumbo Norte Ingenieria Expands Business with Trimble



3D laser scanning presents new lines of business for engineering firm and brings more efficiency, speed and accuracy to its work

# overview

As an early adopter, the company's CEO places a strong emphasis on leveraging technology to deliver projects with unprecedented accuracy and efficiency. Through the use of Trimble products and solutions, Rumbo Norte has expanded into new markets, launched additional services and solidified a competitive advantage, exponentially growing its business.



Location  
GUATEMALA

## CHALLENGE

For Ulises Sanchez, CEO of Rumbo Norte, a combination of the best people, processes and technology is the key to success. With over 19 years of experience and a passion for the measurement, analysis and management of spatial data, he began pursuing a master's degree in Geomatics in 2014. Through that experience, Sanchez realized the industry was undergoing a transformation that could also impact Rumbo Norte. "I saw businesses like ours using 3D laser scanning technology to more quickly capture very detailed data points," he said. "I knew that we could win more business and expand by putting the same technology in place."

At that time, most of Rumbo Norte's work was focused on traditional surveying using total stations. 3D laser scanning would open up new lines of business for Rumbo Norte and bring more efficiency, speed and accuracy to its work.

## SOLUTION

Sanchez discovered Trimble while attending a conference and shortly after, purchased a Trimble TX8 3D laser scanner and Trimble RealWorks software for point cloud processing and analysis. Unlike other scanners that require specialized skills to operate, the TX8 is intuitive and loaded with automatic features, allowing Rumbo Norte workers in the field to get started quickly.

Sanchez was drawn to the TX8 because it would accelerate data capture in the field and at the same time, significantly improve the quality and detail of that data. Not only did the TX8 meet his expectations, it also opened up new business streams for Rumbo Norte, allowing the company to offer 3D deliverables for the first time. "We are one of the only firms in our region to offer 3D scanning and the response has been tremendous," said Sanchez. "With this data, our clients are able to make more informed decisions and build with confidence."

Using the TX8, Rumbo Norte's team can quickly capture accurate data, even in bright sunlight. "With the TX8, one person can scan millions of points per second and it is highly accurate," said Sanchez. The company's engineers then bring the point clouds captured with the TX8 into Trimble RealWorks for processing and analysis. With RealWorks, engineers create state-of-the-art 3D deliverables for clients in the region's rapidly expanding Business Information Modeling (BIM) market.

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**Ulises Sanchez, CEO of Rumbo Norte**



## RESULTS

Rumbo Norte uses the TX8 for a range of projects including structural quality analysis, city planning, and architectural design. The firm has scanned some of the main streets in Guatemala City for a Guatemalan company dedicated to the development, commercialization and operation of innovative real estate projects. The 3D scans were used to design and plan the expansion of the city's roadways and overpasses.

Another project involved one of the biggest concrete companies in Latin America asking Rumbo Norte to scan their entire industrial plant because they needed to make changes to their processes. This needed to be done with high accuracy in order to carry out the design and manufacture of the parts that would be included in the production line. Using the TX8, Rumbo Norte was able to meet their requirements and easily do the analysis for them.

Rumbo Norte also helped a glass structure manufacturing company to design and manufacture a glass handrail for an helicoidal staircase. They used the TX8 to scan the staircase so that the company could

design and manufacture the handrail. By scanning the staircase and providing the data to the company, they were able to reduce the number of visits to the site and also the possibility of error in the manufacturing phase. They were able to provide greater precision which led to a reduction of waste.

With the positive impact and growth that the TX8 and 3D scanning have brought to Rumbo Norte in just six months, Sanchez is excited about what the future holds. "It's a new era for our business and there are many ways we can use the TX8 to bring more value to clients," he said. "Our goal is to continue using the TX8 and RealWorks to expand our services and grow."

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## RESULTS

- ▶ In just six months, Rumbo Norte completed 45 projects using the TX8, representing a 50% increase in income.
- ▶ Data capture that took seven days of work with a total station, now takes only one day using the TX8.
- ▶ Rumbo Norte has expanded its business to offer 3D scanning and deliverables and discovered new ways of using the TX8 for new business opportunities in inventory management.
- ▶ As an early adopter of 3D scanning technology, Rumbo Norte has a competitive advantage over a majority of other firms in Latin America.

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