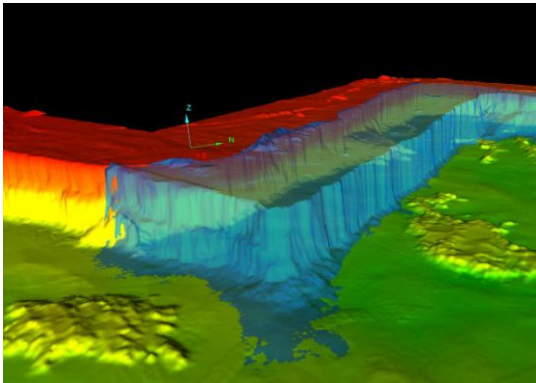


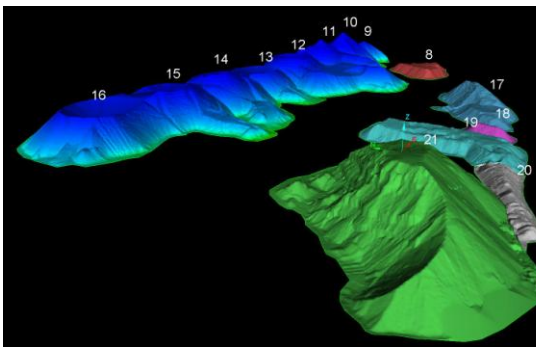
Firmatek & MDL

Dynamic Systems

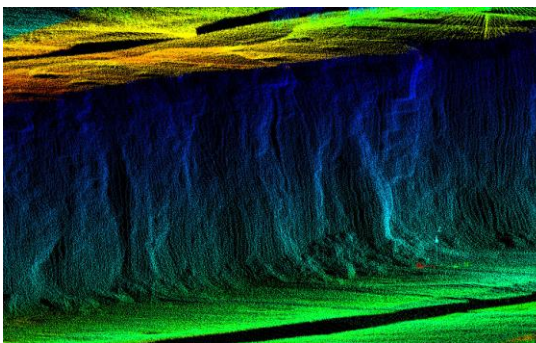
CASE STUDY



Pre & post blast scan data



Stockpile data



Face profile data

Company: Firmatek 3D Mapping Solutions LLC

Project: Company & Dynascan development

Laser System: Dynascan

When Firmatek, a Selma, Texas based company was seeking ways to improve its efficiency and accuracy in serving its clients, it chose Dynascan, MDL's laser based mobile scanning system.

Firmatek-3D Mapping Solutions, LLC and its predecessor companies have been serving Texas and neighbouring states with engineering services since 1989. It began as a one-man company in San Antonio providing the local market with laser-aided blast design and high accuracy stockpile measurement. Since that modest beginning, they've measured over 40,000 stockpiles at more than 140 operations in seven states. Firmatek still specializes in stockpile measurement and has added topographical surveying to their menu of services for the mining and construction industries.

Firmatek's predecessor company, Measurement Solutions, Inc. pioneered the use of laser-based surveying systems in the US mining market. Using the Quarryman® laser and Boretrak® borehole measurement systems developed by Measurement Devices Limited (MDL), Measurement Solutions began to develop methods for making blast design and stockpile measurement more accurate and efficient. Since its founding, they have continued to refine and improve both the hardware and methods to make these important functions more reliable and efficient. Measurement Solutions has now evolved into Firmatek LLC, based outside San Antonio, Texas.

"We have a passion for meeting our clients' needs", Jay Heck, founder of Firmatek explained. "Through the years, we've made every effort to establish ourselves as the company that can be trusted to help solve problems and do the job right. Because of that we're always looking for systems and methods to make our services more useful and affordable."

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CASE STUDY



Scanning in progress



Dynascan 'one-pod' solution

"The current tripod mounted laser systems are now accepted in our industry and, coupled with our dedication for accuracy and service, have served us well. However, we found ourselves reaching the limits of how far we could go with the existing technology. We were seeking a new approach to stockpile measurement that could continue to provide accurate results while doing it more efficiently", Heck explained.

"We've had a close relationship with MDL since 1988 so when MDL approached us with a proposal to help develop and test a mobile laser scanning system in 2008, we readily agreed", Heck continued. "Since that time, we've performed extensive testing on the Dynascan system to make sure it performs to our needed specs. In the end it has to meet our clients' needs and it does that very well."

Firmatek investigated the other laser-based scanners on the market before agreeing to participate in the development of Dynascan, which appeared to be the best suited instrument for their needs. Its compact size and rugged construction make it well suited for applications in the rough terrain typical for the mining and construction environments.

J.R. Heck, CEO of Firmatek, talked about its use of this new approach. "Our goal has always been to figure out how to collect data more efficiently and come up with a better result. Now we're collecting point clouds of stockpile areas and construction sites with points numbering in the millions. These "point clouds" allow for highly accurate models and enhanced visualization tools to allow managers and engineers greater confidence in their results and better final designs. This new approach has also allowed us to provide more services to our clients. We were searching for ways to help our clients solve some of the fundamental problems they face: how to predict reserves of usable minerals, how to more efficiently track production and inventories and how to monitor the efficiency of the overall mining cycle."

Firmatek now offers its clients assistance in all these areas. With the renewed emphasis not only on inventory accuracy but clear documentation, Firmatek supplies clear graphic images of its stockpiles derived from laser survey results. These images provide great confidence that the inventory results provided are accurate and reproducible.

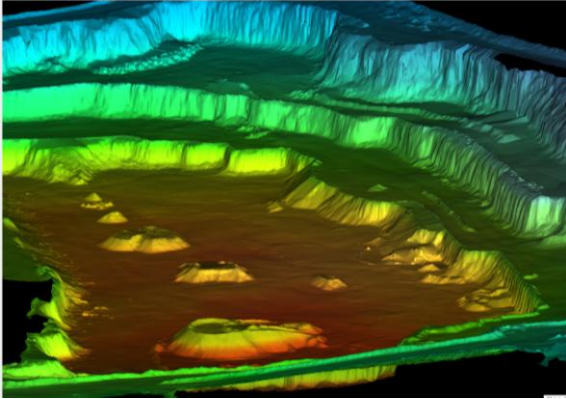
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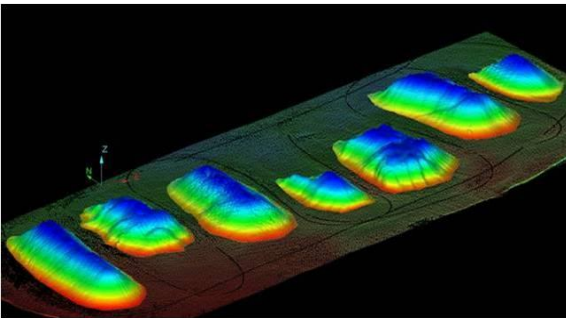
Firmatek & MDL

Dynamic Systems

CASE STUDY



Quarry scan data



Stockpiles scan data

"We welcome those times when there seem to be inconsistencies between our results and our clients forecast results based on sales and production records. Because we do all our surveys on State Plane coordinates, we can now directly compare the volumes of a stockpile this month with the same stockpile last month. By laying the two computer images over each other, we can examine where material has been added to or taken out of a pile, providing an accurate check on our clients sales and production figures.", J.R. Heck explained.

Firmatek is now featuring "point cloud" scans of mine pits and excavation sites as well. By repeating these scans at key points in the construction or mining cycle, accurate cut and fill volumes can be determined. In addition, combining actual topographical scans of unmined areas with drill core samples can provide accurate estimates of minable reserves, allowing for more reliable financial forecasting. "We want to help our clients improve their bottom line", Jay Heck stated. "Using the best technology available is one of the tools in our tool belt to help us achieve this goal. However, our major emphasis is on intimately knowing our clients and understanding their needs. Our clients, some of whom we have had for 22 years, are our reason for existence. Helping them is what makes it fun."

For more information about Firmatek and how they can help you, visit their website at www.firmatek.com

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