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DUELING DATASETS

FARO® Launches the Focus^{S} Laser Scanner

FARO® (NASDAQ: FARO) has announced the release of the all-new FARO Focus^{S} Laser Scanner.

The Focus^{S} is the newest member of FARO's popular Focus Laser Scanner product line and is available in both 150m and 350m ranges. Designed for construction BIM-CIM and public safety forensics applications, this new line of laser scanners brings together several customer-centric features such as an increased measurement range, Ingress Protection (IP) Rating of 54 for use in high particulate and wet weather conditions, an accessory bay for custom add-on devices and a built-in field compensation routine for ensuring system accuracy at all times.

"Establishing a new benchmark against the highly successful Focus^{3D} models of the past 5 years, FARO's Research & Development Team continues to set a high standard for laser scanners. Equipped with highly advanced features in an ergonomic and durable design, the Focus^{S} 150 and 350 are packed with today's most innovative features to maximize efficiencies for laser scanning professionals," stated Joe Arezone, Chief Commercial Officer of FARO.

With a sealed design, the Focus^{S} laser scanner is certified to a Class 54 IP rating, featuring safeguards against intrusions such as dirt, dust, fog and rain as well as other outdoor elements which can occur in extreme scanning conditions.

To ensure confidence in accuracy, the on-site compensation feature enables users to verify the accuracy of the Focus^{S}before each project on-site. Users can correct deviations caused during transport, carrier mishandling or incidental contact automatically on-site and a comprehensive accuracy document can be provided for each scan project.

With the integrated accessory bay, additional accessories can easily be connected to the scanner. Customers and third party developers can augment their scanning capabilities by utilizing this accessory port for future technological customization.

"Customers who have field tested our new laser scanners are truly excited about the overall capabilities, quality and affordability of the units which are unique to the market," stated Andreas Gerster, Vice President of Construction BIM-CIM & Product Design at FARO.

The Focus^{S} Laser Scanners are available for immediate shipment. More information on FARO's Focus^{S} Laser Scanners is available at: www.faro.com/focus

FARO® partners with Siteco Informatica to launch a breakthrough in affordability and flexibility for mobile mapping applications in construction

Rugby, UK, October 10, 2016—FARO® (NASDAQ: FARO), the world's most trusted source for 3D measurement and imaging solutions for factory metrology, product design, construction BIM/CIM, public safety forensics and 3D solutions and services applications, announces an extended partnership with Siteco Informatica to bring affordable mobile mapping, using FARO Focus3D Laser Scanners, to users worldwide.

This partnership pairs FARO´s worldwide sales network with Siteco´s technical expertise in mobile mapping systems to launch the new Road-Scanner C "Compact Edition". Under this partnership arrangement, FARO will provides a global sales network to market the Road-Scanner C and Siteco will sell, install and support the systems.

The Road-Scanner C is a state-of-the-art system that is more flexible than competitive systems and priced to appeal to a broad market of users who need to capture existing infrastructure for applications such as utility pole location, electric transmission and distribution lines, etc.

The system is equipped with two FARO Focus3D Laser Scanners, a 30 megapixel 360° spherical camera and Siteco software. The flexibility to detach the Focus3D Laser Scanners and use them independently as stand-alone laser scanners sets this solution apart from conventional mobile mapping systems and greatly improves the ROI for customers.

"We at Siteco are very excited about our new collaboration with FARO and its world-wide sales and marketing network.

This network will help Siteco expand into geographical regions beyond our reach while championing the popular FARO brand into an exciting and growing mobile mapping market," stated Augusto Burchi, CEO of Siteco.

"At FARO, customers are the center of all our activities and we continuously strive to meet their needs," stated Dr. Simon Raab, President and CEO of FARO. "We have customers inquiring about mobile mapping solutions and, through our collaboration with Siteco, we can now help them solve more of their applications."

For more information please visit: http://www.faro.com and www.sitecoinf.it

Leica BLK360 Imaging Laser Scanner and Autodesk ReCap 360 Pro app

The BLK360 captures the world around you with full-color panoramic images overlaid on a high accuracy point cloud. The one-button Leica BLK360 is not only the smallest and lightest of its kind, but also offers a simple user experience. Anyone who can operate an iPad can now capture the world around them with high resolution 3D panoramic images.

The Leica BLK360 defines a new category: the imaging laser scanner. It is so small and light that it fits in a typical messenger bag and can be carried almost anywhere. It features a 60 meter measurement range for full dome scans. A complete full-dome laser scan, 3D panoramic image capture and transfer to the iPad Pro takes only 3 minutes.

Using the ReCap Pro 360 mobile app, the BLK360 streams image and point cloud data to iPad. The app filters and registers scan data in real-time. After capture, ReCap 360 Pro enables for point cloud data transfer to a number of CAD, BIM, VR and AR applications. The integration of BLK360 and Autodesk software will dramatically streamline the reality capture process thereby opening this technology to non-surveying individuals.

"When Autodesk first introduced ReCap, it was for one purpose: the democratization of reality capture," said Aaron Morris, who oversees reality solutions at Autodesk. "We saw the tremendous power of this technology for the AEC industry, but realized that the cost and portability of scanners combined with difficult-to-use data was limiting the adoption of reality capture. Autodesk's collaboration with Leica Geosystems helps solve these issues by giving just about anyone access to the amazing advantages of reality data."

"As the leader in the spatial measurement arena, we recognized the gap between Leica Geosystems' scientific-grade 3D laser scanners and emerging camera and handheld technologies, and set out to bring reality capture to everyone," said Dr. Burkhard Boeckem, CTO of Hexagon Geosystems. "By combining and miniaturizing technologies available within Hexagon, the BLK360 defines a new category: the Imaging Laser Scanner. It is significantly smaller and lighter (1 kg) than any comparable device on the market. As we developed the ultimate sensor, we worked with Autodesk to create new software and ultimately achieved the next milestone in 3D reality capture. Together with Autodesk's ReCap 360 Pro, the Leica BLK360 empowers every AEC professional to realize the benefits gained by incorporating high resolution 360° imagery and 3D laser scan data in their daily work."

BLK360 & Autodesk ReCap 360 Pro Bundle will be available to order in March 2017. The anticipated bundle suggested retail price is $15,990/€15,000, which includes: BLK360 Scanner, Case, Battery, Charger and an annual subscription to ReCap 360 Pro. For customers who want to secure their spot in line to receive the first batch of BLK360 laser scanners, Autodesk and Leica Geosystems are offering a special limited promotion for a discounted three-year ReCap 360 Pro subscription with a voucher giving priority access to buy the BLK360.

Go to http://BLK360.AUTODESK.COM to learn more.

Trimble Unveils SX10 Scanning Total Station for Surveying, Engineering and Geospatial Professionals

A Next-Generation Surveying Instrument that Redefines Measurement Performance with High-Speed 3D Scanning, Imaging and High-Accuracy Optical Measurements

Trimble (NASDAQ: TRMB) has unveiled a next-generation survey instrument—the Trimble® SX10 Scanning Total Station. It merges high-speed 3D scanning, enhanced Trimble VISION™ imaging technology and high-accuracy total station measurements into familiar field and office workflows for surveyors. The innovative solution provides surveyors and geospatial professionals with the capabilities and versatility to handle projects from traditional surveys to complex 3D modeling.

The SX10, with Trimble's patented technology, enables the capture of both high-accuracy measurements critical for traditional survey projects and rich point cloud data at 26,600 points per second with a range of up to 600 meters. This means surveyors can include 3D scanning as part of everyday workflows, dramatically increasing productivity for topographic surveys, roadway and corridor surveys, volumetric surveys and infrastructure as-builts. The combined versatility of 3D scanning and surveying removes the need for a dedicated 3D scanner, saving significant operational costs and allowing businesses to expand their capabilities to include additional applications such as building as-builts, utility design surveys and forensic reconstruction.

Complete integration with new versions of Trimble's industry-leading field and office software allow users to quickly and easily operate the SX10 within common survey workflows. With Trimble Access™ version 2016.10 software on the Trimble Tablet, users can harness the full potential of the SX10 in the field, whether for efficient measurement and stakeout routines or full 3D scanning

workflows. By integrating rich data from the SX10 into intuitive office workflows, Trimble Business Center version 3.80 enables users to quickly create complete customer deliverables. With its enhanced point cloud management, automated extraction and interoperability to leading CAD and GIS packages, the solution empowers users to satisfy even the toughest client demands.

"This is an innovative technology and a significant breakthrough in surveying capability. The unique advantages the SX10 offers surveyors, engineers and geospatial professionals will allow them to tackle virtually any project with ease," said Ron Bisio, vice president of Trimble's Geospatial Division. "The SX10 Scanning Total Station is a dynamic and versatile solution offering the latest technologies without changing time-tested field and office workflows—while also simplifying equipment investments for difficult projects."

The Trimble SX10 Scanning Total Station is available for order now through Trimble's Geospatial Distribution Channel. For more information, contact a local distribution partner or visit: www.Trimble.com/SX10.

Estimating Rockfall Danger After a Landslide

Project Description

In October, 2015, a landslide occurred in a mountainous area of Switzerland, close to the Italian border. One side of a mountain cliff, tracing back to the 17th century, had been seriously damaged and displaced due to particular underground water floods, making it more prone to collapse than the other side.

Because of this frequent collapse and the resulting landslides, a forest road was built to stop the collapse through monitoring, inspection, and renaturation. However, after the big 2015 landslide, a large falling rock stopped by a bottleneck in the cliff, over the forest road.

In order to send workers in to clean up the road, located directly beneath the rock, an immediate decision needed to be made by the local geological department on whether it would be safe to leave the rock or it would be necessary to blast it.

Left: Pix4Dmapper 3D point cloud
Right: On-site image of the target rock

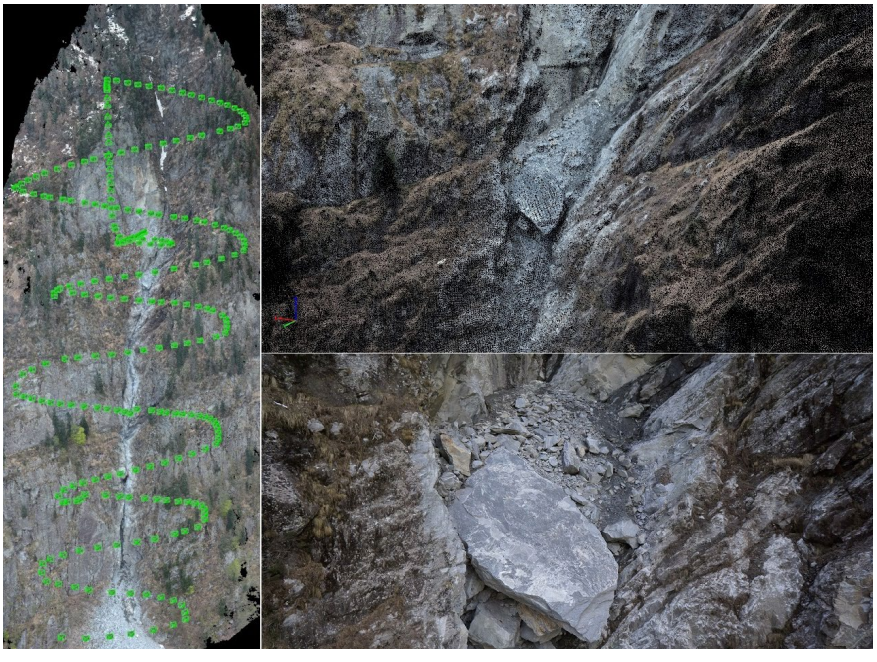
Data Acquisition and Processing

The canton of Ticino's geological department contacted Oblivion Aerial for high resolution (close-up) images of the falling rock. Damiano Maeder, in charge of the project, used a DJI Phantom 4 to acquire images of both the rock and the surrounded cliff, flying manually with the camera shutter triggered every two seconds.

After automatically processing in Pix4Dmapper, the team was able to create a full 3D reconstruction of the entire cliff. All image geocoordinates are recorded in the EXIF file by the camera-embedded GPS. With these image geotags, results can be measured directly in the software. The outcome went far beyond the original requirement and played an important role in the final decision making.

The volume of the rock was measured as around 150 cubic meters, and weight was estimated to be around 375 tonnes, by applying a conversion according to the material composing the rock. In this case, the main component was granite, with a density of 2.5 kg/dm^3, and the weight is calculated as 2.5 x 150'000 = 375'000 kg (375 tonnes).

An alternative way to make these estimations, brought up for discussion during the



case, was to use two laser scanners pointed at the rock. However, this would eventually cost around 3,000 CHF per day after evaluation and makes for an unaffordable solution.

Decision Making

After analyzing the landscape, the evaluation was also done based on the geologist's experience. The geology department decided to keep the rock where it is for now, because according to the size, volume, and height of the rock, even if it continues falling, the smaller rocks underneath will be pushed to the bottleneck and the weight of the big rock will force all to block each other and eventually stop.

The conclusion was made that there is no immediate danger of the rock falling, but the team has decided to go back six months later (around November, 2016) to monitor the same target and recheck the status: using the same drone mapping techniques and Pix4D software!

For more information, contact: Pix4D SA, EPFL Innovation Park—F1015 Lausanne—Switzerland, www.pix4d.com