Trimble and Amberg Join Forces for Tunnel Surveying

Trimble and Amberg Technologies have entered a collaboration to provide a tunnel survey solution. The combined hardware and software solution will enable construction, mining professionals and surveying service providers in underground environments to utilize a complete field-to-office workflow for increased efficiency and productivity. The partnership is particularly focused on North, Central and South America.

The Trimble and Amberg solution enables tunnel surveyors to perform a variety of underground tasks such as excavation guidance, control, automated survey and stakeout of different tunnel elements using design information. In addition, it delivers a comprehensive module for digitalization of tunnel construction and further optimization of related processes.

Automated data collection and real-time results

The tunnelling solution combines the robustness and the speed of the Trimble S series of robotic total stations with the user-friendly workflows of Amberg Navigator field software, running on a ruggedized Trimble TSC7 data collector or T100 tablet. The streamlined workflows are optimized and easy to use for non-geospatial professionals, helping to keep tunnelling and underground projects on time.

In the office, the designs from the Amberg Tunnel office software can be easily transferred to Amberg Navigator, either directly or using the cloud. Following the data collection and stakeout operations, the information is sent back to the office for detailed analysis, where inspection maps and reports can be produced as final deliverables inside Amberg Tunnel office software. This streamlined process can bring significant time and resource savings due to a more efficient workflow and easy-to-use interface.

The solution provides a full-featured workflow for tunnel construction surveys including project definition and design data preparation, a graphical interface supporting instruments setup and georeferencing, an automated data collection and real-time results and an accurate stakeout of various tunnel elements, e.g. drill and blast holes and rock bolts.

The benefit of high-end surveying sensors

“Partnering with Amberg Technologies will provide our customers with an industry-leading tunnelling solution to increase productivity when working in underground tunnelling and mining environments,” said Ron Bisio, senior vice president of Trimble Geospatial. ”The domain-rich and easy-to-use Amberg solution in combination with our Trimble S series can increase confidence in the field and streamline deliverable creation.”

“Together with Trimble high-end surveying sensors, we can enrich our comprehensive tunnel solution with a more versatile offering and, even better, address specific needs in ever-more demanding construction environments,” said Svein G. Vatslid, CEO of Amberg Technologies.

Tunnel surveying is one of the core competencies of Amberg. The comprehensive surveying services and the use of innovative measurement solutions contribute significantly to the promotion of efficient construction processes and high project safety. The Switzerland-based company is known as the global market leader in the area of railway and tunnel surveying and offers its products and services in over 40 countries across the world.

The combination of durable Trimble instruments and Ambergâ€™s user-friendly software provides a full-featured workflow specifically for tunnel construction surveys.