



“3D model is the best tool to give detailed explanations to our clients”

Founded in 1902, Tanaka-Gumi Company Limited is a well-established construction company in Hokkaido, Japan. Tanaka-Gumi recently undertook a slope reinforcement project along Route 336 in Erimo-cho, Hokkaido. To survey the high slope, Tanaka-Gumi used Topcon GPT-9000A robotic total station with ImageMaster 3D image processing software to improve work efficiency and secure worker safety at the same time.

Naoki Sukeyasu, Manager of Tanaka-Gumi, emphasized the improvement in safety. “A conventional total station required a worker to climb up the steep slopes with a prism in hand.

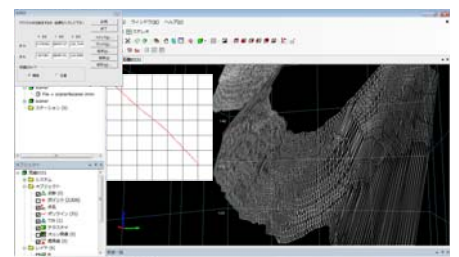


Naoki Sukeyasu
Manager

Takeshi Takahashi
Engineer

Tanaka Gumi Company Limited

With the non-prism measurements using the GPT-9000A, we no longer have to send our men out onto the dangerous slopes.” Takeshi Takahashi, engineer of Tanaka-Gumi, said, “All we have to do is to specify the scan area and pitch, and the GPT-9000A automatically scans the slope surface. This technology enables us to take far more detailed measurements in amazingly shorter time, compared to the conventional instruments.” Takahashi continued, “On top of that, we can work on other tasks while the scanning is in process. We used to have to suspend all construction operations while we were surveying for safety purposes, but that’s no longer necessary. GPT-9000A can take measurements even at the busiest site. This feature has saved labor of about 40 workers.” “Collected data is processed with the ImageMaster software. 3D model created by this software allows us to view the scanned slope from any angle and to obtain a cross-sectional profile of any location. 3D model is the best tool to give detailed explanations to our clients,” said



Post processing of slope data by ImageMaster software

Sukeyasu. He also said that the 3D as-built survey data dramatically increased efficiency in design and layout change tasks. “We will use the GPT-9000A not only for survey works, but also for construction applications. What we’re planning is to apply as-built survey data of GPT-9000A for earthwork project management. In combination with our RTK-GPS receivers, we also plan to adopt the latest ICT-Aided Construction technology,” said Sukeyasu.

* ICT Aided Construction: Construction methods that make use of Information and Communication Technologies (ICT) to increase work efficiency and quality. Machine control system is one of the representative examples.